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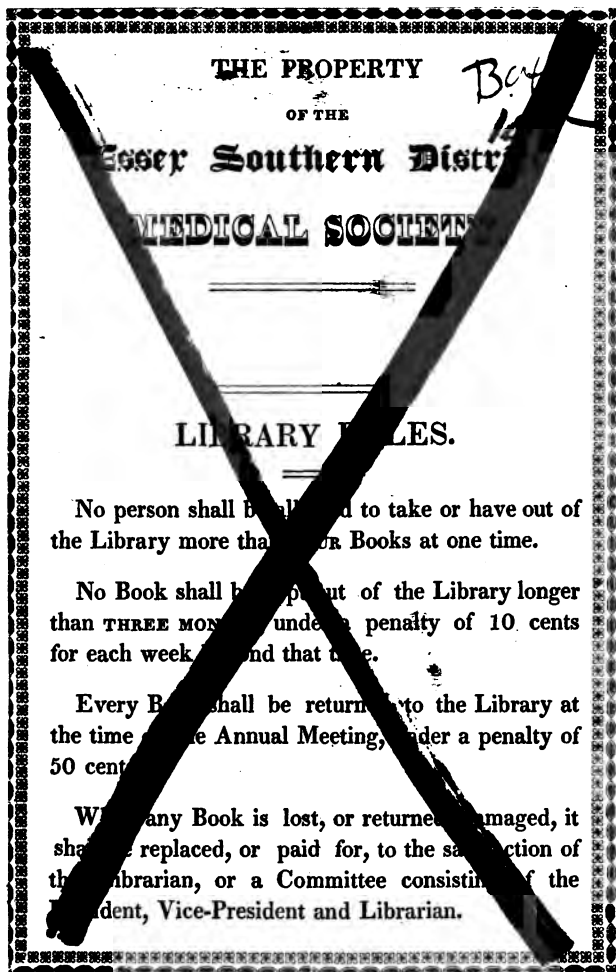
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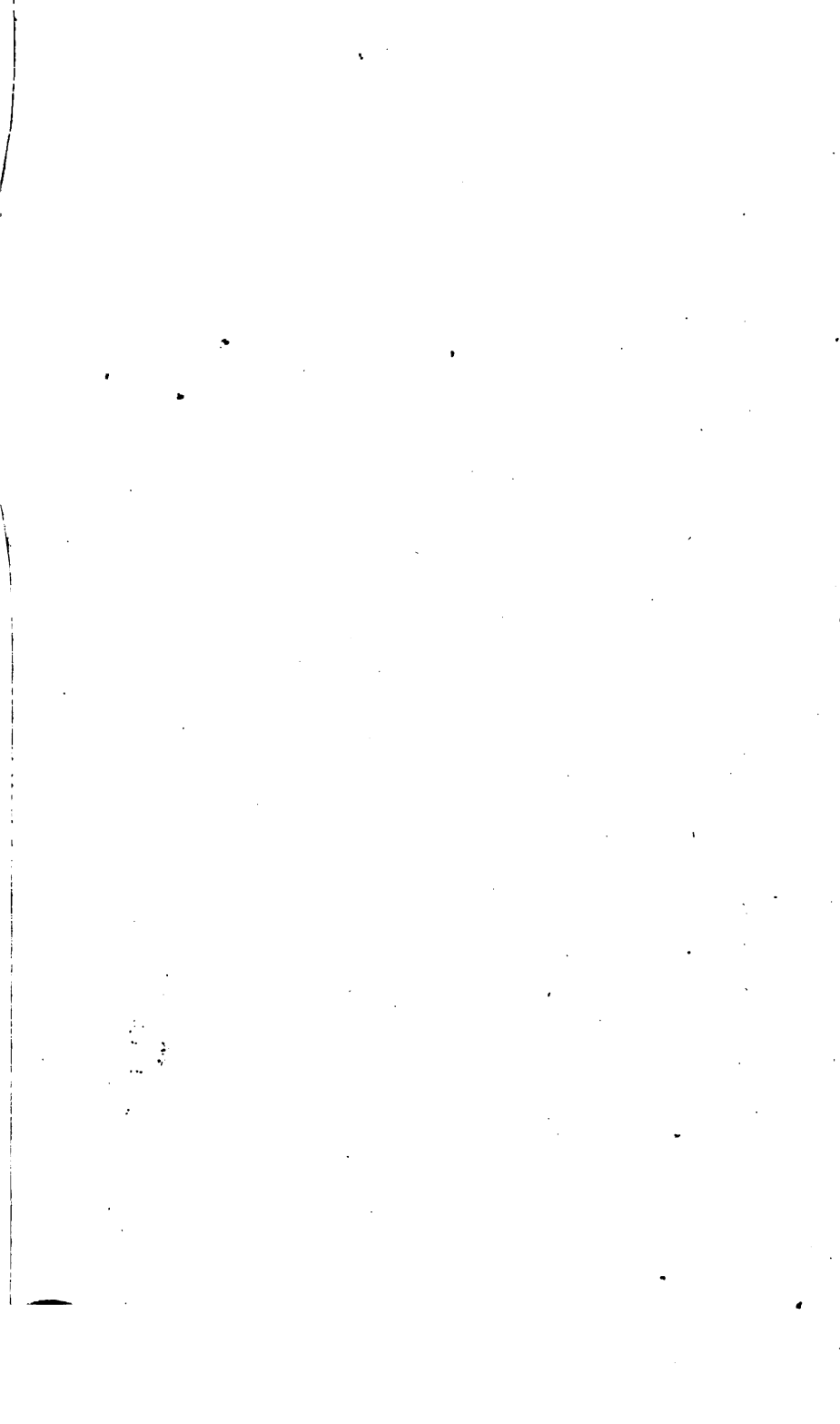
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THE  
LONDON  
MEDICAL AND PHYSICAL  
JOURNAL.

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EDITED BY  
RODERICK MACLEOD, M.D.

PHYSICIAN TO THE  
WESTMINSTER GENERAL DISPENSARY,  
AND LECTURER  
ON THE THEORY AND PRACTICE OF PHYSIC, AND ON MATERIA MEDICA,  
AT THE SCHOOL IN GREAT WINDMILL STREET:

AND  
JOHN NORTH, SURGEON.

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(VOL. LX.)  
NEW SERIES, VOL. V.,

—◆—  
*Et quoniam variant morbi, variabimus artes;  
Mille mali species, mille salutis erunt.*

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# THE LONDON Medical and Physical Journal.

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NO 353, VOL. LX.]

JULY, 1828.

[NO 25, *New Series*.]

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For many fortunate discoveries in medicine, and for the detection of numerous errors, the world is indebted to the rapid circulation of Monthly Journals; and there never existed any work, to which the Faculty, in Europe and America, were under deeper obligations, than to the *Medical and Physical Journal of London*, now forming a long, but an invaluable, series.—RUSH.

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## ORIGINAL PAPERS,

AND

CASES OBTAINED FROM PUBLIC INSTITUTIONS AND OTHER  
AUTHENTIC SOURCES.

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### HYDROPHOBIA.

*Ancient Mode of Treating Persons bitten by Mad Dogs.*

By FREDERICK ADAMS, Esq. Surgeon.

EVERY remedial measure recently tried for the prevention and cure of hydrophobia having confessedly proved ineffectual, I beg to call the attention of the profession to a method of treatment which is said to have proved eminently successful in ancient times. I allude particularly to the internal use of the *Veratrum Album*, or White Hellebore, to which, however, as an auxiliary, was commonly joined the external application of the actual cautery to the wound. In order that the reader may be enabled to form an unprejudiced judgment of the testimony in favor of this plan of treatment, I shall now lay before him the opinions of some of the greatest authorities on ancient medicine, in their own words, literally translated.

“After the wounds have become cicatrised, the white hellebore is to be given for the complete removal of this affection; for, when this substance is given with cake to rabid dogs, they vomit, and are freed from the complaint.”—AETIUS, Tr. ii. se. 2.

“The most effectual remedy which we know is the repeated use of hellebore.”—PAULUS ÆGINETA, lib. v. c. 3.

“By far the most effectual cure for hydrophobia is the administration of hellebore.”—ACTUARIUS, *De Meth. Med.* lib. vi. c. 11.

"Mad dogs are to be confined, and kept without food for one day. Let some hellebore be then mixed with their drink, and, after they have been purged by it, let them be fed with barley bread. In this manner you may likewise cure those who have been bitten by rabid dogs."—THEOPHRASTUS AP. GEOPONICA, lib. xix. c. 3.

For the prevention of hydrophobia, "the most efficacious of all known remedies is a course of hellebore, which may be given with confidence once and again, and may be frequently repeated before the fortieth day, and even afterwards. Such is said to be the efficacy of this remedy, that certain persons who had began to feel the dread of water have been saved by taking the hellebore at the very commencement of the complaint. No one, however, who has been thoroughly affected with it has ever recovered."—DIOSCORIDES, lib. vi. c. 39.

CÆLIUS AURELIANUS, a timid and formal practitioner, of the sect called the Methodical, (whose practice in this disease is highly disapproved of by GALEN,) gives the following evidence in favor of the use of hellebore, although he himself condemns it.

"NIGER gave white hellebore for hydrophobia. EUDEMUS, after letting blood, gives hellebore on the second or third day, and applies cupping-glasses so as to raise blisters on the part. AGATINAS, in a work on Hellebore, orders hellebore in the commencement of the affection. Some direct a cataplasm of hellebore to be applied to the anus. Others introduce suppositories of hellebore."—*De Morbis Acut.* lib. iii. c. 16.

Such is the evidence in favor of the treatment of hydrophobia by hellebore; and, considering that it comprehends the testimony of at least thirteen centuries, it is surely deserving of some attention, after all our ephemeral plans of cure have fallen into disrepute. Hellebore, indeed, is a medicine of which most practitioners of the present day have little or no experience, and, considering the dreadful effects which ORIBASIVS describes as arising from the too liberal administration of it, there can be no question but that it ought to be given with extreme caution; yet, under proper regulations, there can be no doubt that it might be administered without danger, and, if any credit be due to the evidence of antiquity, with decided benefit, not only in this but in many other diseases. It is impossible to read the glowing eulogy which ARÉTÆUS bestows upon this medicine at the conclusion of his work, as it has come down to us, without being impressed with the conviction that hellebore must have deserved, in some degree at least, the confidence which the ancient physicians reposed in it.

The external application in which the ancients most trusted was the actual cautery; and in this they have been supported by the example of many eminent physicians of modern times. I may instance, in particular, VAN HELMONT, STAHL, MORGAGNI, and more recently, MAUNOIE, MAROCHETTI, and ORFILA, as distinguished abettors of this practice. None of them, however, seem to have acted up entirely to the principle upon which the ancients proceeded, or to have had any other object in view than to destroy the virus by the force of fire; whereas the ancients had it in view also to promote the discharge of it from the body, by keeping the wound open as an outlet to it. The nearest approach to the ancient method is that which is said to be pursued with great success at Breslau and Zurich, an account of which was published in HECKER's *Litterarische Annalen* for June 1825, and republished in the *Edinburgh Medical and Surgical Journal* for October 1825. The journalists seem in doubt whether the merit of priority be due to Breslau or Zurich; but the following extracts, while they confirm the strength of later evidence, will show that neither has any claim to originality.

"The part is to be drawn by a cupping glass;\* and, if it is not nervous or muscular, the wound is to be burned. If it cannot be burned, it will not be improper to make it bleed. Then applications fit for burned parts are to be put upon the wound. When fire is not used, powerfully escharotic applications are to be had recourse to."—*CELSUS de Medicina*, lib. v. c. 27.

"Having ascertained that the wound has been produced by the bite of a mad dog, you ought not, like the methodists, to heal up the sore in the common manner, but, on the contrary, you ought to enlarge it by cutting away the surrounding flesh to a considerable extent, and making it of a circular shape, so that it may be the longer of healing, and may remain open for the space of at least forty days,† that the poison of the dog may be discharged by it. Wherefore we are likewise in the practice of using heated cauteries for burning the part, and also other epispastic substances, so as not to allow the venom to lodge in it." GALEN.

"The part which has been bitten by a mad dog is to be kept for a long time in a state of ulceration; and it is not to be permitted to cicatrise, in order that the virus may be discharged by it."—*SCRIBONIUS LARGUS de Comp. Med.*

"The most efficacious remedy for poisoned wounds is burning.

\* This practice has been lately recommended by Dr. BARRY.

† The following is a description of the Zurich plan of treatment: "Deep scarifications of the wound; besmearing it with *Pulvis Lyttæ*; application of a blister in the neighbourhood of the part; keeping up of suppuration, both in the blistered and wounded part, during six weeks, &c."

It is to be particularly attended to that, when the eschars fall off, the lips of the wounds do not immediately coalesce; but the ulcers ought, if possible, to be kept open for a considerable time.”—**DIOSCORIDES**, *u. s.*

**ÆTIUS** gives the following directions for the treatment of the wound :

“ In the first place, the wound is to be enlarged by the scalpel; and the incisions are to be irritated so as to occasion a flow of blood from the part. The ulcer is afterwards to be burned with heated irons of a large size, and then we are to apply leek, or bread mixed with pounded salt, or onions, or garlic. And, when the eschars have fallen off, the ulcers are to be prevented from healing for forty or sixty days; or, if they have cicatrised, they are to be reopened.” For this purpose he recommends various applications, and, among others, a composition, for which the following is a receipt :

R. Salis Fossilis ʒ viij.; Chalcitidis ʒ xvj.; Squillæ ʒ xvj.; Rutæ Viridis ʒ iv.; Æruginis Rasæ ʒ iv.; Marrabii Sem. ʒ j. M.

The chalcitis was a preparation of copper, resembling what is now called the sulphate; and this and the ærugo combined must have rendered the ointment a powerful escharotic, and consequently eminently calculated to fulfil the purpose for which it was intended.—See Tetr. ii. sec. 2.

**PAULUS ÆGINETA** gives the following formula for a composition intended to keep the ulcer open :

R. Aceti Sextar. j. ʒ ix.; Picis Purgat. ℥ j.; Opoponacis Quadrant. ʒ iij. M.

“ Burning with iron is applied for the cure of diseases, but most particularly for the bite of a mad dog. Even after the persons bitten have become affected with the terror of water, they are speedily relieved by the application of the cautery to the wound.” **PLINY**, *Il. N.* lib. xxxiv. c. 44.

“ By far the most efficacious remedy for poisoned wounds is burning; for, since the power of fire is greater than that of any other substance, it not only subdues the virus, and prevents it from spreading farther, but the part which is destroyed by it also contributes, in no small degree, to the cure, by remaining long in a state of ulceration. For it ought to be particularly attended to, that the parts be not allowed to coalesce sooner than proper.”—**ACTUARIUS**, *De Meth. Med.* lib. vi. c. 11.

Regarding regimen, **ÆTIUS** prudently directs that the diet be neither too generous nor very spare, and intimates that he considers the latter extreme the more dangerous. In this respect his practice seems to have been founded upon very correct principles, since the absorbing powers of the veins are known to be in the direct ratio of their emptiness. This phy-



siological doctrine, to the discovery of which MAGENDIE has lately laid claim, was well understood by the ancients, and is particularly inculcated by the Arabic medical writers. See AVERRHØES, *Colliget.* lib. vii. c. 1, and *Collectan.* § iii.— Upon this principle, I cannot but think that, although blood-letting be mentioned by some of the ancient writers, and is much depended upon by several modern surgeons, it ought to be entirely proscribed as a preventive of the disorder.

*Banckory; May 4th, 1828.*

*Case of Hydrophobia, treated with Superacetate of Lead.*

By CHARLES E. JENKINS.

I BEG leave to offer to your notice a case of hydrophobia, which, as far as my recollection extends, is the severest on record: the disease, in its whole progress from the first appearance of the symptoms, not occupying a greater space of time than thirty hours and a half.

33, *Great Prescott-street.*

WILLIAM THOMAS HAZLAM, a fine young man, aged twenty-two years, residing at No. 8, Jones'-building, Gower's-walk, White-chapel, by occupation a labourer, had complained, for three months previous to his fatal malady, of heaviness in the head, weariness, and constant propensity to sleep, which he attributed to having caught cold.

On Saturday, November 4th, in the afternoon, he complained of being ill, refused to take his tea; and, at thirty minutes past eleven o'clock, first discovered an inability to swallow fluids, which he ascribed to flatulence, which, meeting the descending liquid, would not allow it to pass into the stomach.

He continued getting worse in this respect until eleven A.M. November 5th, when I first saw him. I then found him dressed, sitting by the fire: he complained of wind in the stomach, and lamented his incapability of swallowing liquids. In reply to the question, whether he felt pain, he said, "I am in no pain whatever; I can eat a crust of bread as well as any one in the room, but I can't drink: my throat is not sore, and I don't know why I can't swallow." Pulse eighty; tongue furred, dry and parched; bowels regular; skin moist.

Two P.M.—Now the peculiar symptom, before only suspected, showed itself in all its characteristic intensity: on the instant of his attempting to take any liquid, to which he was constantly incited by the most tormenting thirst, a frightful convulsion of the whole body succeeded. He was now in bed, and had rolled the bedclothes round him, and girted them tight round his neck. The least breath of air, the undulation of the bedclothes (unless caused by himself), or the slightest thing in motion, produced the utmost agony and terror.

Four P.M.—Being considerably worse, Dr. T. DAVIES, of New Broad-street, was called in at the patient's request, who recommended (the exhibition of liquid medicine being impossible.) a trial of the Plumbi Superacetas in substance, in doses of half a grain every half hour: this the patient managed pretty well, by placing the powder on his tongue himself, but he would not suffer any other person to attempt it for him; and even this simple method of receiving the medicine was followed on every occasion by a slight paroxysm, as soon as the powder touched his tongue.

Six P.M.—The disease greatly aggravated. Pulse 130; mouth still parched; thirst incessant, beyond any thing I ever witnessed before: he continually cried "Oh! that I could drink quarts." His countenance expressed fear and horror, combined sometimes with fury, at others with the saddest melancholy.

Nine P.M.—Found him sitting on the bed, supported by two attendants, of whose breathing on him he continually complained. He would not suffer the candle to approach him, or to be moved. The sight of a sheet of white paper distressed him exceedingly. A small mirror being shown him, threw him into strong convulsions: on his recovery, being questioned as to the cause of them, he replied "Because my face looks so white, I can't bear it."\*

He had drilled his two attendants into a sort of military observance, and this was the order of it: they holding him under each arm, the one held a teaspoon containing a little milk, which, when the patient gave the word "Now," he endeavoured to throw into his mouth; but the moment it approached his lips, he threw himself backward on the bed in the utmost agony of convulsion, which lasted generally twenty seconds. A tranquil interval of ten seconds succeeded; then suddenly and furiously he would cry out "Ready!" which meant that they were to raise him up again. After a few seconds, in which he strained his courage to another dreadful effort, the word "Now" would be repeated, the spoon again approach his lips, and the convulsions as certainly follow. This process continued without intermission or variation until four o'clock. In one of his tranquil moments, he said "I don't know what you think of it, but I call this killing work."

Eleven P.M.—His mouth, which had throughout continued parched, began to discharge saliva in abundance, which he blew forth with convulsive energy. He showed a mischievous inclination to blow his saliva upon the persons present: this he would apologise for in his calm intervals, and, with a bitter smile, would request them to "keep out of the way next time."

A tendency to vomit, perhaps occasioned by the Plumbi Superacetas, disturbed him; spasmodic action of the abdominal muscles also frequently occurred.

It was a distressing operation to him to wipe off the saliva which collected about his mouth, and annoyed him very much. After

\* His face at this time was flushed.

many fruitless attempts, he would pass his handkerchief over his lips with the rapidity of lightning, but the convulsions, ever at hand, still more swift, would, at the slightest contact, inevitably follow.

A small portion of wine, not exceeding the third part of a teaspoonful, having, in the only felicitous attempt I witnessed, passed into his mouth, elicited from him loud exclamations of joy: "Oh! (said he,) how that drop of wine has comforted me! I shall be cured now; I feel myself a new man!" But this calm was of only three minutes' duration; and the longest interval he enjoyed was succeeded by a fearful exacerbation. Pulse 140, very small; body drenched in constant perspiration; face red and swollen.

This state of things continued, the paroxysms equally distinct and frequent, but weaker, until four o'clock, when all convulsions ceased, and he died about five o'clock, so easily that his attendants knew not the precise moment of his death.

A very strict inquiry was made by Dr. Davies and myself into all the circumstances of his life. His father and mother declared he had never been bitten by any animal during childhood; and he as strenuously denied it on his own part, and continued to do so until two hours before his death, when he confessed to his father that a dog kept by his master had, nine months before, bitten him in the instep, thigh, and hand. Being questioned as to the cause of his obstinate denial of the fact, he said, "If I had told those Doctors the truth, they would have caused me to be put to death."

This was not the language of unhinged reason, but a mere expression of a vulgar opinion, which obtains with some, that a hydrophobic patient may be with impunity destroyed.

During the whole progress of the disease, he felt no pain; his reason never deserted him; he had a craving appetite, but, notwithstanding his assertion that he could eat a crust of bread, I never found that he could suffer any thing to pass his lips: his whole frame, like a highly charged electrical battery, required but a touch to be thrown into sudden and violent action.

Distant sounds did not affect him. In the room he would not allow conversation, though carried on in the lowest whisper. All white and shining bodies were held by him in utter abhorrence.

I have not been able to discover whether the dog had ever exhibited any rabid appearances: he is dead, having been starved by the neglect of the deceased, who had the charge of feeding him.

*Examination of the body.*—Externally: discovered a scar on the inner part of the left leg, corresponding with his statement to his father of one of the bites of the dog, across which branches of the saphena nerve extended themselves. The nerve presented no remarkable appearance.

Brain: Dura mater very adherent. Veins of the surface very much distended. More bloody points than usual in cutting the

medullary substance. Ventricles nothing remarkable. Plexus choroides unusually pale. Serous fluid at the basis about two drachms. Under the tongue, nothing unusual.

Larynx and trachea red; fine vessels, in arborescent forms, extending down the latter; much light brown spumous serosity in the trachea.—Lungs and heart healthy.—Pharynx very red; redness suddenly ceasing at the commencement of the œsophagus, which latter presented a healthy appearance.

Stomach: Small quantity of fluid; arborescent redness, but not considerable, of the great cul de sac of the stomach.

All the intestines perfectly healthy.

*Queries.*—1st. May not the nerves be endued with a power of absorption?

2d. May not hydrophobia be produced by nervous absorption?

3d. May not the absorbent power be exceedingly slow, proceeding step by step until the morbid matter arrives at the spinal marrow or brain, when the disease makes its appearance.

It is observed of painters, that, after using the brush a considerable time, a portion of lead constantly insinuating itself between the handle of the brush and the hand, that they become paralytic; but two years of constant exercise in painting is, as I am informed, the earliest period at which that disease manifests itself. This, I submit, cannot be accounted for either by venous or lymphatic absorption.

4th. If the foregoing positions could be proved, would they not lead to this practical result, that, after the bite of a rabid animal, dividing the nerve supplying the part bitten, by cutting off the communication with the nervous origin, would prevent the disease; and if the slowness of nervous absorption could be established, might it not, even a *considerable time after* the bite, by dividing the nerve some distance from and above the part bitten, be still attended by a corresponding beneficial effect?

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*Case of Hydrophobia, in which Bleeding appears to have been of service.* By CHARLES DAVIS, M.D. Member of the Royal College of Surgeons in Ireland, &c.

ON Wednesday, March 19th, 1828, I was sent for by my friend, Dr. JOHN ELLIOTT, to take charge of Joseph Keating, a boy between eleven and twelve years old, who resided at Newcomen Bridge, North Strand, and was labouring under hydrophobia. I received the following account of the case: He had been several times bitten, but more especially about four months since he had received a bite from a strange dog, whose history could not be

accurately made out. The injury consisted of three large and deep lacerations upon the inner and fore part of his right thigh, over the course of the saphena vein and femoral artery. For these wounds he had been received into Stevens's Hospital, where they were at first dressed, and afterwards poulticed. He remained in the hospital for sixteen days; but at the end of that period, the wounds being still open, and presenting a sloughy surface, he ran away. It appears that his mother applied poultices, smeared with oil of turpentine, to the wound; under which treatment they rapidly granulated, and ultimately healed.

On the 14th, he was observed to remain at home, instead of going to play as usual. On the 15th, his mother, in some way, spilt or threw some water upon him, on which he was much agitated, and appeared to be choked. In the course of the afternoon he was observed to be gloomy and desponding, and his eyes were red. The cicatrix of the wound on the thigh was found, on examination, to be sore, having "cracked" and given vent to some sero-sanguineous exudation. Throughout the two ensuing days, he appeared to grow worse; became gloomy, shy, and strange; screamed occasionally; ate nothing, but frequently wanted to drink, yet could not swallow.

On Wednesday, the 19th, when I entered the room, he looked at me obliquely, and with marked suspicion; his eyes were red and suffused; his cheeks had a livid flush; his respiration was hurried; his pulse very frequent; his tongue much furred. He complained of pain in his back and at the pit of the stomach; his bowels were confined, and he had difficulty in voiding his urine. He had no appearance of vesicles, or apthæ, under his tongue, nor fulness in the region of the salivary glands; but the sterno-mastoid muscles had their outline rather more defined and evident than in health, and his general susceptibility to impressions seemed increased.

I breathed gently upon his face, upon which he was instantly attacked by a violent convulsion, during which the cervical muscles were called powerfully into action.

Throughout this convulsion, he seemed to suffer very considerable constriction of the pharynx and larynx; his cheeks became suffused and livid, and his face (the mouth more especially) was very much protruded. The convulsion resembled exceedingly, but was much more violent than, the shivering spasm which occurs upon jumping into cold water, or upon receiving the shock of the cold shower-bath. Asking him if he would take some water, putting a spoon upon a plate, or pouring out water within his hearing, produced a similar convulsion.

On showing him a piece of looking-glass, he started back in the wildest terror, stretching out his arms, and became violently convulsed. The three cicatrices upon his thigh were red; the largest had upon it several cracks, which crossed it obliquely; the discharge of reddish serum had ceased, but he complained of a

"stinging" pain in them all. Touching any of them gave him considerable uneasiness; and pressure made below the cartilages of the ribs, if directed upwards, had a similar effect. He complained much of thirst. On offering him a teaspoonful of water, the sight of it produced a convulsion, but after that had subsided, he made several desperate, but unavailing, efforts to carry the spoon to his mouth.

As I had seen purgatives, narcotics, antispasmodics, and strychnine, prove utterly ineffectual in former instances, and encouraged by the success which I had in a case of tetanus, in which the patient recovered from a state as rigid and immovable as a statue, chiefly under the very liberal use of the lancet, aided by purgatives, I determined upon employing a similar plan of treatment in the present instance: in addition to which, I decided upon the removal of the cicatrices without a moment's loss of time.

I opened a vein in his right arm; but, as the blood flowed slowly, I also opened another in his left, and thus abstracted a quantity amounting to sixteen ounces or more.

The effects of this bleeding were decidedly advantageous: the eye lost much of its wildness, and the violence of the spasms was diminished; he became able to permit his arm to be bathed with warm water, which we could not have attempted before.

I now proceeded to excise the cicatrices. He complained chiefly of the lowest, which was the largest; it was red and cracked, and covered with a scaly cuticle, which was detached in some places. The removal of these cicatrices required a cautious dissection, in which I was assisted by Dr. ELLIOTT and Mr. RICHARD COOTE. During this operation the boy exhibited as great a degree of fortitude as I have ever seen evinced, and, indeed, his general character was that of extreme determination.

I prescribed for him—

Pulv. Jalapæ c. ʒj.; Calomel gr. vj.; Pulv. Zingib. gr. ix. in ch. tres quorum, capiat j. secundis horis donec, &c.

At half-past seven in the evening, his bowels had not been opened; his pulse was 156, the frequency apparently depending much upon the convulsion; his tongue furred; the expression of his countenance wild. The noise of water poured in the next room into a vessel, brought on a violent paroxysm; and presenting him with a glass of cold water had a similar effect. After many efforts, he succeeded in swallowing a teaspoonful of warm tea.

Enema purgans statim.—Applic' Emplastrum Lyttæ epigastrio et hypochondrio dextro.—R. Pulv. Jalapæ c. ʒiv.; Calomel gr. vj.; Pulv. Ipecac. c. gr. ix. M. div. in ch. iij. quorum, capiat j. secunda quaque hora donec, &c.

March 20th, eight A.M.—Bowels three times moved, stools fetid and bilious; has taken but one of the powders last directed; pulse 156, rather hurried and feeble; face somewhat flushed; endeavours occasionally to get up some viscid phlegm; has much difficulty in making water; tongue much furred; skin nearly

had been twice moved naturally; his pulse 100; tongue clean, natural. The testicles appear to be drawn upwards towards the rings, while the scrotum is relaxed. At times he lies quiet, with the pupil of the eye covered by the upper lid; at other times, flings his arms about impatiently; but at all times, and even while he seems inattentive, is suspiciously watchful of every one around, as was several times exemplified. The noise of the tea things in the next room produced a severe convulsion, which was reproduced in a violent degree by breathing gently in his face. Light and noise appear to distress him, and, when any one approaches him, he tosses out his arms, or else covers up his head in the bedclothes; the pupil somewhat dilated. When questioned, he answers rationally. The wounds upon his thigh do not exhibit the slightest appearance of inflammation, and, but that no blood flows from them, they look as they did immediately after they were inflicted.

Half-past seven P.M.—The blister has risen; pulse upwards of 160, not full nor strong; face flushed; respiration hurried. Has been sleeping, but awoke with fright, and said that water had been thrown on him. Delirious during the day, frequently desiring the attendants "to turn out that dog." His teeth covered with a viscid saliva; his tongue very much furred; his expression of countenance that of wild timidity; his whole appearance much changed for the worse. The least excitement brought on the spasm, and the slightest breathing upon his face threw him into a convulsion so severe that he remained for a considerable time afterwards apparently much exhausted.

Under these circumstances, although his general appearance very little invited the employment of the lancet, guided rather by the result of the previous bleeding than by the present symptoms, I bled him to the amount of eight ounces; which was followed by an obvious alleviation of the symptoms. In employing this bleeding, I considered that, as his circumstances were desperate, I was justified in recurring to the remedy which had before relieved him. I prescribed a purging enema, which brought away a bilious, green, and fetid stool; and directed that a long blister should be applied to the spine, from the occiput to the middle of the back.

The sight of a looking-glass presented to him this evening, induced a convulsion similar to the appearance which a child presents when suddenly plunged into cold water.

At nine o'clock on the morning of the 21st, I learned that, after I had left him, he had slept for some hours; that the blister had partially risen; that he had swallowed some warm tea several times throughout the night. His appearance improved; pulse under 160; tongue furred, two aphthæ of a white colour are visible upon its apex. Has had one bilious stool. Appears on his guard against the effects of the noise of water, or of being asked to drink, either of which now only produce a sort of smile, in which he seems to compress his lips, and to exert a powerful command

over the muscles of his face, by which he succeeds in preventing the spasm.

Dr. HARKAN breathed gently upon his face while stooping to examine his tongue, which instantly brought on the convulsion. He swallowed some warm milk with a spasmodic effort, but appeared much improved. The objections of his family to a repetition of the venesection were insurmountable.

On this day he was visited by Mr. PEILE, who agreed with Dr. HARKAN, Dr. HARVEY, Mr. FLOOD, and the other medical gentlemen who had seen him, that his case was exquisitely well-marked hydrophobia.

I visited him on the evening of the 21st, when I found him still further improved; and, with a view to allay the general irritability, which was present, I directed that he should take ten drops of the Acetum Opii every fourth hour.

At half-past twelve on the 22d, he appeared much better: his pulse was 126 or 130. I learned that, on the preceding evening, he had made an attempt to bite his mother; and that the convulsion had several times through the night been brought on, while some children, who lay in the room, made water. He drank some wine and warm milk, but when he was offered a few drops of whiskey in a wine-glass, the convulsion recurred with violence.

At half-past seven P.M. he appeared to have improved; his pulse about 120; states that he is better. His tongue is cleaning at the edges. He complains of the pain of the blistered parts.

As he appeared somewhat heavy and sleepy, I directed that the use of the Acetum Opii, of which he had taken twenty drops, should be stopped; and, as the sight of transparent glass vessels had the effect of reproducing the convulsion, I desired that his drink, which was to consist chiefly of mulled port wine, should be given him in a teacup.

March 23d, twelve M.—He is much improved: his pulse 108; his tongue quite clean, the two apthæ on its tip are still visible; no thirst, but an appetite for drink. Appears irritable, and scratches the blistered parts unceasingly. His bowels have been naturally open, and a vesicular eruption is observable: the vesicles are a sixth of an inch in diameter, resembling those of pemphigus, and are not very numerous; they contain a turbid serum, are not surrounded with any areola of inflammation, are chiefly observable upon the fore part of the chest, but some are scattered over the extremities.

Today, as his symptoms were considerably improved, I thought it unnecessary to direct any medicine, but desired that he should have wine and warm milk, both of which he drank with tolerable facility, and with relish. On this day, blowing upon his face produced a slight convulsion, but in every other respect he had materially amended.

On the evening of the 23d, I found him still better: his bowels



the aphthæ still visible; has drank freely throughout the day; the vesicular eruption still apparent.

*Inhibetur Enema purgans.*

On the morning of the 24th, he appeared still better. I directed that he should continue the milk diet as before.

In the evening, his pulse was under 100; tongue clean; appetite for drink considerable.

*Enema purgans statim.*

As I had lately met with considerable advantage from the Ammoniuret of Copper as a tonic and antispasmodic, in some cases of chorea which occurred in children who were patients at Saint Thomas's Dispensary, and deeming the exhibition of a tonic likely to accelerate his recovery, of which I entertained hopes, I prescribed for him a fourth of a grain of that medicine every fourth hour.

25th, twelve M.—No hydrophobic symptoms apparent; tongue rather dry; pulse 100, somewhat hard; respiration somewhat hurried and quick; short cough occasionally, and expectoration of viscid mucus; bowels confined; urine scanty and high coloured. I directed that the use of the Ammoniuret of Copper, of which he had taken not more than three-fourths of a grain, should be discontinued.

*Capiat Pulv. Jalapæ c. ʒj.; Calomel gr. ij.; Pulv. Zingib. gr. iij. secundis horis.—Enema purgans post horas iv.*

—and I left instructions that venesection should be freely practised, if the inflammatory symptoms continued after the bowels should be opened.

This morning I was unexpectedly called away out of town, and, upon my return the next night, I found the boy dying of pneumonia. It appeared that the symptoms of inflammation in the lungs had progressively increased; that his cough, unaccompanied with expectoration, had become frequent and distressing; his pulse hard and full; his tongue dry; his chest greatly oppressed. The stethoscope had clearly indicated the existence of pneumonia at the posterior and inferior part of both lungs, the *ralé crepitante* being audible at the corresponding parts of the chest, while the *ralé puerile* was heard throughout the remainder, and the *ralé muqueuse* was very evident. The abdomen also was somewhat tender under pressure.

Notwithstanding these symptoms, and every argument which had been employed to convince her to the contrary, his mother had obstinately resisted the further abstraction of blood, either by the lancet or by leeches; neither would she permit the application of a blister, nor allow him to take medicine of any sort. He died on the evening of the 26th, the fourteenth day from the setting-in of the disease.

In fact, as the opinion which I had given of the result had been unfavorable at the commencement, the friends of the boy, from their own idea of the nature of this disease, esteemed every exer-

tion rather in the light of an experiment, than as likely to be followed by benefit.

Sixteen hours after his death, I took the opportunity of making a dissection, in presence of the Bishop-street pupils. Within the cranium and spinal canal, every part was healthy, except that the pia mater in both of these regions seemed rather more florid than usual; but the difference, if real, was extremely trivial. The appearance of the pharynx, œsophagus, and stomach were perfectly natural. Both lungs, at the inferior and posterior part, presented the traces of high inflammation, being violet coloured and indurated. A quantity of reddish serum issued from a section of them when squeezed, and from several distinct points blood and pus was observed to flow. The liver was occupied throughout by the small brown tubercle; its size was diminished, and the gallbladder was greatly reduced in magnitude. A small portion of the jejunum was intussuscepted, and the part which was inclosed within the lower portion was somewhat diminished in its calibre. The serous surface of the neighbouring portion of jejunum was rather more vascular than usual, but the intussusception appeared to be very recent. The descending colon was slightly contracted in its calibre, as if by the action of its circular fibres; and, at the sigmoid flexure, a considerable degree of contraction, approaching to stricture, and apparently from a similar cause, existed for the extent of an inch. The rectum was empty and contracted; the bladder also was empty, and had contracted very closely. Every other part was healthy.

Just before his death, his mother had been prevailed upon to permit the abstraction of blood from his arm, but at a period when the measure was hopeless. The blood, which was drawn at this time, differed much from that which had previously been taken away, as its coagulum was firm and resisting, cupped upon its surface, and would no doubt have presented the buffy coat, had it flowed more rapidly from the vein; while the blood which had been drawn during the continuance of the hydrophobic symptoms was flat upon its surface, and loosely coagulated, as we usually find it to be in diseases attended with spasmodic action of the muscular system.

Although little analogy appears to exist between hydrophobia, which is a febrile and infectious disease, and tetanus, which is uninfected and not necessarily accompanied with fever, yet it is worthy of remark, that, in the instance of Patrick Higgins, to whose case of tetanus I have above alluded, the patient narrowly escaped falling a victim to pneumonia, at a time when the tetanic symptoms were nearly at an end; and I may also observe, that, in all those cases of hydrophobia which have fallen under my observation, the patients, shortly before the setting-in of the symptoms, had been exposed to some considerable excitement.

## HÆMOPTYSIS.

*Case of Hæmoptysis, in which a very large quantity of Blood was lost.* From the posthumous Papers of the late T. CHEVALIER, Esq. F.R.S. &c. &c.

MR. G., ætat. sixty, a stout plethoric person, weighing about sixteen stone, was awaked early in the morning of the 25th of October, by a cough accompanied with expectoration of blood.

MR. MORLEY arrived within twenty minutes, and found the heart and arteries acting with great violence. Blood was drawn from the arm until the impetus of the circulation was allayed, and the hæmoptysis ceased; when it was estimated that the patient had lost about ten ounces of blood from the lungs, and twenty-four from the arm. The following draught was ordered to be taken every third hour :

R. Inf. Rosæ f3jss.; Acidi Sulph. dil., Tr. Digitalis āā m. xv. M.

At noon, Mr. G. had the benefit of Mr. CHEVALIER's advice. The hemorrhage had not recurred, but the pulse had resumed its bounding character.

V.S. ad 3xvj.—R. Plumbi Superacetatis gr. jss.; Aceti distill. f3j.; Mist. Amygdalarum f3j.; Aq. Pimentæ f3ij.; Tr. Sennæ f3jss. M. fiat haustus sextâ quâque horâ sumendus.

In the evening, the pulse acquired its former hardness, and the patient complained of costiveness and pain in the bowels.

V.S. ad 3xvj.—R. Infus. Sennæ f3xj.; Tr. Ejusdem f3j.; Magnes. Sulph. 3 iij. M. fiat haustus quamprimum sumendus.

26th.—Mr. G. passed a quiet night; during the day also he was free from hemorrhage, and the arterial action appeared much diminished. The bowels slightly relieved.

R. Potassæ Subcarb., Acidi Citrici, Pulv. Tragacanth. c. āā ʒj.; Potassæ Sulph. 3 ss.; Aquæ puræ f3xij. M. fiat haustus sextâ quâque horâ sumendus.

27th.—At three o'clock in the morning the hemorrhage returned, and nine or ten ounces of blood were expectorated. The force of the circulation was much augmented.

V.S. ad 3xvj.—R. Plumbi Superacet. gr. jss.; Aceti distill. f3j.; Syrupi f3j.; Aquæ Menth. pip. f3v. M. fiat haustus sextâ quâque horâ sumendus.

In the evening the hemorrhage returned, but was immediately arrested by

V.S. ad 3xvj. Rep<sup>r</sup> Haustus Sedativus.

28th.—In the morning, Mr. G. complained of pain in the bowels and of constipation. No hemorrhage had taken place during the night. The pulse was less bounding.

In the evening, the arterial action increased.

V.S. ad 3xvj.

29th.—At five o'clock in the morning, the hemorrhage returned with as much violence as on the first occasion, and from fourteen to sixteen ounces of blood were expectorated.

V.S. ad 3xxiv.

30th.—The disposition to hæmoptysis appeared much reduced; but the patient complained of considerable abdominal pains and costiveness.

R. Pulv. Digitalis gr. j.; Conf. Opii gr. iij. M. fiat pilula sextâ quâque horâ sumenda.—R. Inf. Sennæ f3ss.; Mist. Camphoræ f3viij. M. fiat haustus sextâ quâque horâ sumendus.

In the evening, the pulse having reacquired a great degree of hardness,

Appl<sup>r</sup> nuchæ Cucurb. Cruentæ, et detrah<sup>r</sup> sang. ad 3xvj.

31st.—Mr. G. complained again of abdominal pains, without tenderness: the bowels continuing costive.

Enema Sennæ cum Magn. Sulph. statim.—R. Magnes. Sulphatis 3j.; Aquæ Menthæ f3vj. M. Capiat quartam partem quartâ quâque horâ.

November 1st.—At five o'clock this morning, the pains in the abdomen continuing, hot fomentations were applied, with considerable relief; emollient clysters were exhibited, and the bowels freely evacuated. At eight o'clock the hæmoptysis returned with increased violence, producing sixteen ounces of blood from the lungs. It lasted until half-past nine: during its continuance, Mr. G. was twice bled from the arm, viz.

V.S. ad 3xij. et V.S. ad 3x.—R. Ol. Terebinth. rect. gtt. xv.; Mucil. Acaciæ, Tr. Kino aa f3j.; Aq. Rosæ f3x. M. fiat haustus sextâ quâque horâ sumendus.

At four o'clock, Mr. G. again expectorated blood to the extent of six ounces, the heart beating with great violence.

R. Potassæ Nitr. ʒss.; Vini Ipecac. f3j.; Tr. Digitalis m. xv.; Aquæ f3xj. M. fiat haustus tertiâ quâque horâ sumendus.

In the evening, the patient was relieved; but, the bowels being uneasy, the opening draughts were resumed.

2d.—Mr. G. slept during several hours in the night; the pulse this morning gained strength.

Rep<sup>r</sup> Haust. Terebinth.

In the evening, it became necessary to repeat the bleeding.

V.S. ad 3xiv.

3d.—The force of the circulation was much reduced. The abdominal pains had returned, and he complained of costiveness.

Capiat statim Olei Ricini 3j.—Enema Emolliens.—Rep<sup>r</sup> Haustus Terebinthinæ.

4th.—The disposition to hemorrhage still continued to decline; but the abdominal pains were very severe, and the patient complained of difficulty in voiding his urine.

Fotus Papaveris.—Rep<sup>r</sup> Haustus Terebinthinæ.

5th.—The hæmoptysis recurred at different periods from twelve until nine o'clock A.M., by which time about twenty ounces of blood were expectorated. Emetics were given repeatedly during this period.

At half-past nine o'clock, the aid of Dr. CHOLMONDELY was requested, who prescribed the following—

R. Sulph. Zinci, Pulv. Ipecac. aa gr. v.; Aq. Puræ f3xij. M. fiat haustus tertiâ quâque horâ sumendus.

At eight in the evening, it was agreed that the state of the circulation required V.S. ad  $\frac{3}{4}$ xiv.

R. Zinci Sulphatis gr. ij.; Pulv. Ipecacuanhæ gr. v. M. fiat pulvis quartâ quâque horâ sumendus.—Capiat primo mane Olei Ricini  $\frac{3}{4}$ j.

6th.—About eleven o'clock this morning, the hæmoptysis recurred in a slight degree.

R. Succî Limonis f $\frac{3}{4}$ j.; Carb. Sodæ  $\frac{3}{4}$ ij.; Aqua puræ f $\frac{3}{4}$ ss. M. fiat haustus sextâ quâque horâ sumendus.

In the evening, V.S. ad  $\frac{3}{4}$ xiv.

Pulv. Ipecac. comp.  $\frac{3}{4}$ j. horâ decubitus sumenda.

7th.—Mr. G. appeared infinitely better: he had slept during the greater part of the night; he was free from pain, and the activity of the heart and arteries was considerably reduced.

Cont<sup>r</sup> Haustus Limonis, et Pulv. Ipec. comp. horâ somni.

8th.—The force of the circulation and the throbbing of the heart were again much increased.

V.S. ad  $\frac{3}{4}$ xviii.—R. Inf. Digitalis f $\frac{3}{4}$ ss.; Aquæ Menthæ f $\frac{3}{4}$ j. M. fiat haustus quartâ quâque horâ sumendus. . . Capiat etiam quartâ quâque horâ Extr. Humuli gr. v.

9th.—Mr. G. seemed better in every respect.

Cont<sup>r</sup> Haustus et Pilula.

10th.—He complained of considerable pain in the abdomen, the bowels not having been relieved since yesterday morning.

Enema Sennæ quamprimum.—R. Inf. Digitalis, Aquæ Menth. aa f $\frac{3}{4}$ vj. M. fiat haustus sextâ quâque horâ sumendus.

In the evening, the pulse becoming full, and the hæmoptysis returning, V.S. ad  $\frac{3}{4}$ x.

R. Hydr. Submur. gr. iv.; Pulv. Ipecac. comp.  $\frac{3}{4}$ j. M. fiat pulvis horâ somni sumendus.—Capiat primo mane Ol. Ricini  $\frac{3}{4}$ j.

11th.—About three o'clock this morning, the expectoration of blood recurred, but ceased when ten ounces of blood had been taken from the arm.

R. Succî Limonis f $\frac{3}{4}$ j.; Sodæ Carbon.  $\frac{3}{4}$ ij.; Inf. Digitalis f $\frac{3}{4}$ ss. M. fiat haustus sextâ quâque horâ sumendus.

In the evening, V.S. ad  $\frac{3}{4}$ xvj.

Rep<sup>r</sup> Pulvis Ipec. comp. cum Calomel.

12th.—Today, for the first time, the character of the pulse became sensibly altered: the blood appeared to circulate without any hardness of pulsation in the arteries. In the night, the hæmorrhage returned, but it was suppressed by V.S. ad  $\frac{3}{4}$ vj.

Rep<sup>r</sup> Haustus et Pulvis.

From this period Mr. G. progressively improved. His mouth became affected by the Calomel on the 15th. The bowels, by the occasional use of castor-oil, afforded frequent evacuations of dark-coloured fæces, and the urine was abundantly secreted. From the commencement of the attack until now, there never were any febrile symptoms, nor did the constitution of the patient appear to suffer, on the other hand, from the loss of so large a quantity of

blood. The frequency of the pulse may be averaged at 72, varying from 60 to 86.

The total loss of blood between the 25th of October and 12th of November, Mr. Morley estimated as follows: From the lungs, 87; from the arm, 254; by cupping, 16; total, 357 ounces.

P.S.—It is now about seven years since the date of this case, and the patient has been dead about three months.

### MIDWIFERY.

*Half-yearly Report of Cases in Midwifery, which have occurred in the Northern District of the London and Southwark Midwifery Institution.* By C. WALLER, Esq. one of the Consulting Accoucheurs to the above Institution, and Lecturer on Midwifery at the Medical School, 58, Aldersgate-street.

It having been intimated to me that a report of the cases occurring in the northern district of our institution would be acceptable for publication in your Journal, I lose no time in complying with the request: at the same time, however, observing, that it cannot be considered a perfect report, from my not being aware that it would be published, and consequently from my neglecting those means which would have insured a more correct return. If, with these imperfections, it is worthy your notice, it is perfectly at your service.

December, 1827.					
Number of Women delivered.	Sex of Children.		Born alive.	Still-born.	Presentation.
	Males.	Females.			
27	15	12	25	2	{ 26 Natural 1 Breech
January, 1828.					
34	18	16	34	0	{ 32 Natural 2 Breech
February.					
33	18	15	32	1	Natural
March.					
27	18	9	27	0	Natural
April.					
22	9	14 (1 twin case)	22	1	Natural
May.					
22	14 (1 twin case)	9	23	0	Natural
Total, 165	92	75	163	4	

*Remarks.*—Of the four still-born children, two were born between the sixth and eighth month of utero-gestation, and

the other two were first children, in which the breech presented : in one there was plenty of room, but a great deficiency of uterine action ; in the other the pelvis was considerably contracted, so that great difficulty was experienced in extricating the head. In the first case I exhibited two doses of the *secale cornutum*, the first of which was ejected from the stomach, and the latter did not appear to have any effect. It may, however, be observed, that the medicine had been exposed to a damp atmosphere, and had been dried before a fire, which probably was injurious to it.

In one case, hemorrhage to a serious extent occurred, but it was effectually checked by the liberal use of cold water and the employment of external friction : and here I cannot help expressing my conviction of the efficacy of *external friction*, when promptly and properly applied, believing that it would, in almost every instance, supersede the necessity for the introduction of the hand *within*; an operation always productive of pain, and not altogether unattended with risk. The patient was twenty-seven years of age, and had been confined four times previously, and had usually been subject to large losses of blood. Her getting-up was protracted in consequence of her suffering severely from that irritable state of the head and of the bowels, so frequently the result of profuse hemorrhage. The combination of calomel with large doses of opium appeared to be very serviceable.

In one female, fever of the low type occurred, after a very natural and easy labour. This patient was miserably poor, and had been shamefully neglected by a creature calling herself a nurse. There was excessively increased action, with diminished power, the pulse rising to 160, and continuing above 120 for several days; the head much disturbed; the countenance alternately flushed and pallid; the bowels at first constipated, a horribly offensive diarrhœa afterwards came on, the *fæces* passing involuntarily, as well as the urine; the uterine discharge was very offensive, and there was no secretion of milk. She was also at times exceedingly distressed with vomiting. There was at no time any abdominal pain, which circumstance alone led me to hope for a favorable result. The tongue throughout indicated great intestinal irritation, being either morbidly red or brown, usually moist, being at no time covered with that hard dry crust which we sometimes observe in fevers of this description. It should also be noticed, that she had, throughout her complaint, that peculiar sharp manner of talking so disagreeable to the accoucheur, inasmuch as it usually portends the most imminent danger. The treatment of this patient was very varied,

being adapted to the symptoms as they arose. Her bowels being at first confined, the indication was obviously to relieve them, which was done with some difficulty. The stomach irritation was relieved by small doses of the Soda Tart. and the liberal use of the effervescing draught; which latter was exceedingly refreshing to her. Calomel and opium, by producing sleep, assisted in the cure, and, as soon as we could safely do it, the judicious introduction of food into the stomach. On the supervention of the diarrhoea, the pulse fell from 160 to 130, and consequently I did not attempt to restrain it suddenly, especially as the symptoms of exhaustion were not increased by it. When it was thought right to check it, (for it occurred more than once during her illness, small doses of Conf. Opii, with Conf. Aromat. dissolved in peppermint water, answered the purpose very well. Never did I have an opportunity of observing the sudden effects of cleanliness as in this case. On my visit one day, I found her apparently in an almost desperate condition, when I was requested to examine a sore on her nates, which I was told was extending. On inspection, I saw a very irritable sloughy sore, which, if not altogether produced by, was certainly aggravated in consequence of, the filthy state she was allowed to remain in. I directed thorough ablution, and the very next day, to my utter astonishment, she was sitting at the fire dressed. From this time there was no relapse.

A case of fatal apoplexy occurred in a young woman, only twenty-three years of age, who miscarried, for the seventh time, at about the seventh month of gestation. The labour was a very easy one, and she appeared, for the first two or three days, to be doing remarkably well: at the end of this time she was seized with great pain in the head, and a loss of motion in one half of her body; the mouth also was much drawn on one side. The pain, and the distortion of the face, were completely relieved by blood-letting and the application of leeches, followed by a blister; she was then salivated. The muscles of deglutition, however, became paralysed, so that no nourishment could be administered; nor had she the power of bringing up a very tough viscid mucus, with which the mouth and fauces were covered. I attempted to excite vomiting by tickling the fauces, but the sensibility of these parts seemed to be lost. She sank, as far as my recollection serves me, (for I omitted to take a memorandum;) on the seventh or eighth day after delivery. No examination of the body was allowed. The friends of this female informed me that she experienced two slight attacks during her pregnancy.



In one case the use of the forceps was required. The patient, a stout young woman, ætat. twenty-eight, was taken in labour with her first child, on the 2d of March: the pains continued pretty regular, though not severe, till the 5th, when I was requested to see her. The os uteri was at this period only half dilated, and the parts of generation rigid; the liquor amnii had been discharged about twenty-four hours; the pains feeble; the head situated completely above the brim of the pelvis. She did not appear to be suffering at all from fever, but, being of a strong habit, I ordered her to lose twelve ounces of blood, to have an injection administered, and afterwards a full dose of opium. At two o'clock in the morning of the 6th, I was again desired to visit her, and found the os uteri very nearly dilated, the parts of generation much more moist, the pains strong, and the head descending; every thing, in fact, promising a speedy termination to the labour. At ten o'clock I again visited her, and, finding little or no advance had been made, I determined to deliver with the forceps. Considerable difficulty was experienced in the extraction of the head, which was of a very large size. The infant, however, lived, and the mother had a good getting up.

An inflammatory adhesion of the placenta occurred in one instance, attended with considerable loss of blood: on removing the placenta, the discharge immediately ceased.

It was my intention to have appended to this report a few select cases which have lately fallen under my observation, from other sources than that of the institution: time, however, will not at present allow of my doing so, and I must therefore defer it to some future opportunity.

*Bartholomew Close; June 5th, 1828.*

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#### RHEUMATISMUS FEBRILIS.

*Paper on a singular Description of Disease which appeared in the Island of St. Christopher, in the latter end of the year 1827 and beginning of 1828. By JOHN SQUAER, Esq. assistant Surgeon 93d Regiment.*

THE disease which forms the subject of the present paper had broken out for several weeks in the islands in our immediate neighbourhood to leeward, which are all foreign and "free ports," with the exception of the small island of Tortola, (which is a dependency of St. Kitt's,) and have frequent intercourse with us, by means of small English trading vessels; consequently it is not to be wondered at, the facility

with which disease of an epidemic nature finds its way here.

It is not meant that the present disease should be considered as having been brought to this island by means of communication: proof enough will be afforded to upset this idea in speaking of the comparative prevalence of this disease amongst the troops of the garrison and inhabitants, even although it is characterised in the newspapers of the island by the title of "*an epidemic of the most painful nature, which the oldest inhabitant did not remember to have seen or heard of before.*"

This disease is classed as a species of rheumatism, in the Quarterly Return of Sick of this garrison, and is styled by me Rheumatismus Febrilis; commonly known by the name of rheumatic fever in this and the neighbouring islands.

In the latter end of December and beginning of January of the present year, many people began to complain of very violent headache, severe pain in the temples, shooting towards the forehead; frequently it was situated in the back of the head, stretching towards the neck and shoulders, which was one of its most painful positions, as the least motion created great agony, and it was difficult to find an easy posture for the head. There frequently was a painful sensation as if the head were drawn down towards one side or another; pain, or, at all events, a disagreeable sense of stiffness, was felt in the eyes, especially when moving them from side to side, or raising them upwards: the patients expressed it, by saying the socket felt as if it were too small for the eyeball; frequently the eyes felt painful to the touch; the adnata was slightly tinged with red vessels.

Shooting pains were at the same time felt in the back, loins, and thighs, particularly immediately over the knees, which soon became fixed and uncommonly severe: the same thing took place in the arms, forearms, wrists, fingers, knees, ankles, and feet, causing lameness; the calves of the legs were similarly affected.

A roseolar eruption came out early in the disease, which covered the wrists and extended up the forearm: it spread over the backs of the hands; the ankles and feet were in the same state; it was sometimes elevated in large wheals, and, when it affected the neck, it was extremely painful: the hands and feet were considerably swelled.

In delicate females, the roseola came out on the face in patches, and on different parts of the body, and remained for several weeks after the other symptoms had disappeared.

It need hardly be added, that motion of any kind greatly aggravated the symptoms, and the gentle pressure of the hand could scarcely be suffered.\*

Fever came on simultaneously with these various affections, or very soon was observed in conjunction with them, marked by a sense of heaviness in the head and great listlessness, nausea and loss of appetite, and, in delicate people, the irritability of stomach was sometimes distressing. Severe rigors, and alternating flushes of heat; face flushed; quick full pulse; and hot dry skin; with, in a few cases, delirium, were also observed.

Pain of stomach, sensible to gentle pressure, was present in one or two instances.

The violence of the symptoms and fever lasted from four to five days; but it was never under seven or eight days that all the pains were gone. In most cases, the pains were felt for a much longer time; and in severe attacks, pain and tenderness to the touch remained in the eyes, hands, calves of the legs, ankles, and feet, for weeks afterwards.

These symptoms varied in number and degree of violence, according to circumstances, and were much influenced by mode of living and constitution, sex, and age.

The soldiers composing the garrison of Brimstone Hill were less liable to this disease than the inhabitants; and their attacks were not of so long continuance, nor generally so severe. Nearly all the officers had it, and it was severe in one instance only. The very general run it took amongst the inhabitants had the effect of its being supposed to be epidemic; in many instances, not leaving a family till every one had been attacked.

The young and robust had smart attacks, and fever of shorter duration, and they did not so often labour under its effects; and were even exempt from one or two symptoms that afflicted people of an opposite description.

Delicate females and aged persons had more protracted attacks, and they suffered more from irritability of stomach; and the roseolar eruption in them was most remarkable; and the feet continued swelled and tender, producing lameness for some time: the fingers were also swelled and painful.

On account of the lingering nature of the disease, many were induced to suppose that, during the space of eight or ten weeks, they had fresh attacks, and were even impressed

\*. The stiffened form, occasioned by the pains in the head connected with the shoulder, and the dread of motion, obtained for it the fantastic name of "the dandy."

with the idea that they must have a third attack before they could get well: this was owing to exposure to the cold damp weather, which at first caused it, and consequently easily re-excited the pains they had not entirely got quit of.

This disease, in all the instances I have witnessed, was considered of a simple, and though of a violent nature, yet there was nothing dangerous in it. It has been said to have terminated fatally in one or two instances in this island: in some of the others, it has caused death in several instances.

This circumstance I am inclined to attribute to some untoward combination of disease, or might be the result of accident, as was the case in one instance. A coloured man, of the town of Old Road, having had symptoms of the disease, thought himself sufficiently well even to go to his work, imprudently bathed in the river, which aggravated the disease to such a degree as to cause his death: previous to which, the irritability of stomach was very great, vomiting quantities of black-looking matter repeatedly.

Inflammation of the stomach, I am inclined to think, is the unfortunate combination which, in fatal cases, commonly is the cause of death. In a very few instances, I have observed it in the commencement of the attack, and it was necessary to direct particular attention to this symptom, or combination; for, as there is a possibility of this combination appearing in greater or less degree, so as perhaps to be little heeded, and be allowed to proceed too far, without any precaution being taken to remove it, it is at once accounted for how it may become the cause of death, and confirms the truth of this opinion.

Instances of relapses were few amongst the troops, and none of the lingering symptoms attached to them that have been enumerated in the description of the disease.

Children seemed for some time to be exempt from this disease, but latterly they have also suffered. It was indicated by peevishness, and soreness on being touched; great irritability of stomach; in those who were able to walk, an imperfect manner of using the limbs was observed, causing them frequently to fall. Feverishness was present in all.

There were a few peculiarities noticed in this disease, which entitled it to be considered as a novel and unknown kind of morbid affection. 1st. The extreme violence of the pains in the commencement, and the peculiar sensations they created; 2d, perspiration was not easily excited; 3d, thirst was not much complained of, even in the violence of the fever and in delicate females; 4th, the roseolar eruption above mentioned, and the swelling and tenderness of the hands and feet, was

not often observed in the cases in the garrison; 5th, delirium was chiefly confined to delicate females, and aged persons of weak, nervous constitution.

The weather, previous to the appearance of the disease under consideration, and during its continuance, was of a nature unprecedented in severity in the West Indies, at least for very many years.

In the latter end of November, and nearly up to the present period, the weather became extremely boisterous, being nothing but a continuance of heavy rains and high winds; the evenings cold—very cold for this country, so much so that we were obliged to shut our doors and windows on sitting down to dinner; and we found it requisite to cover ourselves with a blanket at night. No Creole constitution could hold out against such weather: they are generally of such a frame that they are not at all capable of undergoing the fatigues and exposure of Europeans who have been a few years in this country. Besides, their mode of living and their habits are also very different from the regiments serving in the country. It was even surprising we escaped as we did; and, although the dress of our men was not altered, which at the time was merely linen trowsers, and which could not guard them very well from the cold damp air of the night, yet we did not suffer in any thing like the way that the natives did. The greater part of our men are young, of strong constitutions, and well fed: it was not to be supposed that they could easily be affected by weather that to them must have been only agreeable.

In treating this anomalous disease, the objects had in view were to lower increased action in the system, and to restore the deranged functions of the vessels of the skin, which might be almost considered the cause of the disease. In accomplishing these purposes, few means were required. The pain of head, and great degree of excitement in young men of stout habits, sometimes required blood-letting, but, generally speaking, it was seldom employed: there was a much better remedy found, which nearly answered both purposes, and that was cathartics. Aloes, colocynth with a combination of calomel, in the following proportions and manner of exhibition, was the usual plan adopted:

R, Extract. Colocynthis comp., Aloes Socotrina, Gummi Resina, aa gr. iij.; Hydrargyri Submuriatis gr. xxiv. fiat massa in pilulas duodecim dividend sumentur tres h. s.

On the following morning, the pills were assisted by doses of Infusion of Senna, to which was added a small quantity of

neutral salts, or supertartrate of potass. This plan generally required to be repeated once or twice.

When the action of the bowels was thus increased and kept up, the febrile action and violence of the symptoms underwent an almost immediate diminution; particularly the headache, which was the most distressing symptom. Cold water was at the same time applied to the head, by means of folds of linen.

To determine to the skin was another mode of treatment employed, to remove altogether the pains of different parts of the body: this was effected by using the warm bath, and giving small doses of antimonial or James's powder, with a few grains of calomel, three or four times a day; and keeping the body warm, from the commencement of the treatment.

The diet was light and plain. Wine, when it might be advantageously employed, was given.

When pain of stomach was present, which very rarely was the case, and, when it was increased by pressure, its removal was always of the first moment; in doing which, the counter-irritation occasioned by the application of vesicants was a very powerful remedy. Gentle purgative injections at the same time were essentially useful.

With regard to the employment of the sulphate of quinine, I am not able to bear testimony of any power it is supposed to possess in diminishing the violence of the symptoms, or in preventing returns of this disease; and seeing no reason to believe that there existed any morbid consent between the sensorium and deranged impressions of distant parts, I never employed this medicine with the view of defeating its return. —I must confess I used it (the sulphate of quinine) in one or two instances only, before the nature of the disease was exactly declared. It came on in subjects accustomed to frequent attacks of ague, the symptoms of which were chiefly complained of at the beginning. It afterwards turned out that violent pains, such as those that characterise rheumatismus febrilis, were conjoined; therefore cannot positively decide in favor of the sulphate of quinine having any effect in shortening the disease, or in preventing its recurrence when it had apparently gone off.

The disease was very apt to return, or, from having disappeared, was liable to be again excited, if the patients were unguardedly exposed to its causes, which have been stated to be an extraordinary degree of cold and damp in the atmosphere, and the prevalence of high winds, with heavy rain. Under these circumstances, the best security that could be

had against its aggravation or recurrence was to defend the body by warm clothing, and confinement to the house, or even to the bedroom.

During the last six weeks we have had rather better weather, but it is still far from being settled, and of late the disease has not appeared in any thing like the frequency it did some time ago.

*St. Christophers; April 11th, 1828.*

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#### OBSTINATE COUGH.

*Case of Obstinate Cough, occasioned by Elongation of the Uvula, in which a Portion of that Organ was cut off.* By PHILIP SYNG PHYSICK, M.D. Professor of Anatomy in the University of Pennsylvania.

IN June last, a young lady afflicted with a very obstinate cough applied to Dr. Physick, and gave him the following history of her case, drawn up by her physician at New Orleans:

"The first circumstances which had any connexion with the singular affection of this young lady, were a complaint of constant headache, attended with a disposition to vomit without nausea occurring first, during convalescence from an attack of remitting fever, in the middle of May, 1826. The latter symptom soon became the most prominent, and increased to a constant effort to retch, in which nothing was thrown up from the stomach, and which was not relieved by free vomiting. At this time no complaint of pain was made any where but in the head.

"Considering the gastric irritation as sympathetic of an incipient cephalic affection, leeches were applied to the temples and behind the ears, and some doses of active cathartic medicines given. No advantage was derived. The retchings became nearly constant, and, from a noisy effort to vomit, it gradually changed to a convulsive cough, altogether involuntary and uncontrollable, and conveying an impression as if something obstructed and irritated the organs of respiration. This, as nearly as it can be described, has been the character of the cough ever since.

"The first paroxysm increased in violence for a number of days, and until the 8th of September, when, about mid-day, after vomiting, (which was at this time not unusual with her,) in which she threw off a quantity of white tough mucus, she fell into a state of extreme prostration. The cough ceased, and she appeared to be dying. From this she slowly revived through the evening, and on the next day there was a degree of reaction amounting to fever, which gradually subsided, and left her quite well.

"The mucous expectoration, likewise, though at the time regarded with some interest, has, in the latter attacks, been produced occasionally in vomiting, but never followed by the same alleviation. On the recovery from the first attack, she remained well

for two weeks, when she was again seized with the same spasmodic cough, attended with pain in the breast, but not preceded, as before, with any irritation of the stomach. This, after continually increasing in violence for about eight days, again left her in nearly the same manner it had done in the first instance. After an interval of three weeks, she had another attack of the same duration, and of extreme severity. Since this there has been two more, but at longer intervals, and not altogether of the same severity.

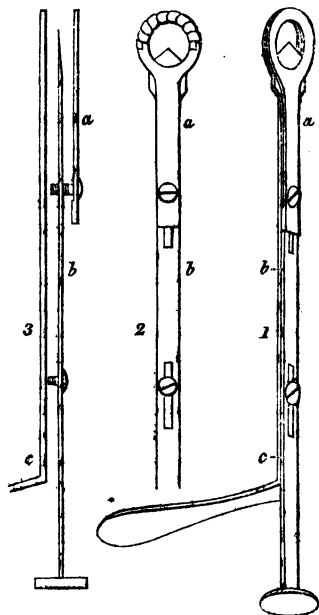
"The dates of the different paroxysms are the early part of September, of October, of November, of January, and of May. During the long interval between January and May, a slight cough of the same peculiar character has seized her every morning on awaking, after which she remains entirely exempt for the remaining twenty-four hours. At first it lasted for a few seconds only, but its duration gradually increased to thirty or forty minutes. Since the last violent attack, it has been reduced to only a few moments' continuance."

After many remedies had been used in the above case, without affording any permanent benefit, the patient was sent to Philadelphia, and Dr. Physick consulted. The circumstances appeared to him to point out an elongation of the uvula as the cause of the disease. On examining the throat, he found such an elongation actually existed. This was explained to the patient and to her friends, and the excision of a part of the uvula was performed; immediately after which all the symptoms ceased entirely, and have not since returned in the slightest degree.

In the operation of cutting off the uvula, Dr. Physick has, until very lately, used scissors; but being unable to complete the operation by one application of that instrument, several have been necessary to effect the division of the part. To obviate this difficulty, he determined to try the old instrument, as modified and represented by Benjamin Bell, in his System of Surgery. He found, however, that, although he could divide with that instrument the greater part of the uvula, a portion of the membrane that covers the back part of it was not always divided, making the use of scissors necessary to cut it through. To remedy this inconvenience, he caused an instrument to be made as represented in the annexed figure, having two plates instead of one, between which the knife was passed, but still the same difficulty was experienced in cutting through the membrane on its posterior part. He then thought of wrapping a strip of waxed linen over the semi-circumference of the opening, to support the membrane until it should be divided by the knife. Thus constructed, the instrument answered his purpose completely, and cut through the whole substance of the part in an instant. Dr. Physick has since used an instrument of similar construction



for the removal of scirrhus tonsils. He finds it easy to cut off the whole, or any portion that may be necessary, of the enlarged tonsil in this manner. The operation can be finished in a moment of time. The pain is very little, and the hemorrhage so moderate that it has not required any attention in four cases in which the Doctor has lately performed it.



This instrument is so accurately represented in the annexed engraving, that a very brief description of it is all that can be required. Three views are given: 1st, a perspective; 2d, a front; 3d, a side view, the parts separated to show them more distinctly. The whole instrument is made of steel, and consists of two plates, *a* and *c*, between which is the cutting blade *b*. The upper plate, *a*, is short, and is fastened to the lower, *c*, by a screw, which passes through a groove in the blade *b*. The lower plate, *c*, is longer than the upper, and is bent at one end so as to form a handle. Between these two plates is the blade, *b*, one termination of which is somewhat lance-shaped and sharp, the other has a button on it, upon which the thumb is pressed when it is wished to push forward the blade. The blade is made to move steadily by the screw which connects together the upper and lower plate,

and also by a second screw which passes through a groove in the blade, and fastens in the lower plate.

In figure 2, the strip of waxed linen is represented wound round the semi-circumference of the opening.

The size of the perforated end of the two plates, and of course that of the knife, must be larger in the instrument for extirpation of the tonsils, than in that for truncation of the uvula.\*

#### GLUTEAL ANEURISM.

*Successful Case of Ligature of the Internal Iliac Artery, for the cure of Gluteal Aneurism.* By S. POMEROY WHITE, Surgeon, Hudson, N. Y.

IN the early part of October last, Jacob Van Volkenburg, aged sixty, by trade a tailor, came to Hudson for the purpose of obtaining surgical advice. He presented to our view a tumor about the size of a child's head, located upon his left hip, directly over the sciatic notch. He stated that it was of ten months standing, and that he experienced no pain from it. His general health had been good, except that he suffered from rheumatism. Upon making an examination of the tumor, the skin was found not discoloured; fluctuation was perceptible, but there was no pulsation. The absence of the last symptom rendered it difficult to decide upon the nature of the case, and accordingly we postponed giving an opinion until a consultation could be held with Dr. Hicks. The Doctor stated that the tumor could be removed by pressure, when small, but, from other cases he had seen of a similar kind, he presumed that it contained pus. He proposed opening it, and, as that was the only way of ascertaining unequivocally the nature of the disease, we acquiesced. He accordingly punctured it, and nothing but florid blood made its appearance. A probe was passed in, and an aneurismal sac was found, about five inches deep. It was also discovered that the parietes of the sac were very firm and unyielding, which accounted for the absence of pulsation. After allowing a pint of blood to be discharged, the orifice was closed with a suture and adhesive plaster. It was observed that after this, and also subsequent discharges of blood, that the sac would fill again, and the tumor resume its usual dimensions. The disease was supposed to be produced by repeated falls upon his left nates. He was a man of rather intemperate habits, and, when stupified by liquor, would fall, as they expressed it, like a log. Being also lame in his left limb from rheumatism, he consequently was most liable to fall upon his left nates.

The consultation board having unanimously concluded that the disease was aneurismal, it then became a question whether it was most for the interest of the patient to tie the gluteal or internal

\* American Journal of the Medical Sciences.

iliac artery. As a precedent for the former, we had Mr. John Bell's famous case. In that, with all his dexterity, he barely succeeded in saving his patient, in consequence of the hemorrhage, though some allowance must be made for his usual hyperbole. My father, also, stated in the consultation, that he had been under the necessity of tying the gluteal at the notch, but under the existing circumstances of this case he would not recommend that operation. Indeed, the inability of compressing the artery above the disease, the possibility of the patient dying of hemorrhage before the artery could be secured, and the probability of the artery being diseased within the notch, were insuperable objections to tying the gluteal. On the other hand, we had an encouraging, although a solitary\* precedent, in the case of Mr. Stevens, of the Island of Santa Cruz. There the disease was the same, and the application of a ligature to the internal iliac proved successful. The operation of tying the internal iliac was accordingly concluded upon, though the patient's age was considered as a circumstance that would operate against its success. He at first declined having the operation performed, but, as profuse hemorrhage repeatedly supervened, he became weak and alarmed, and requested us to pursue whatever course we deemed most expedient.

On the 23d of October, he was laid upon the table, and an incision was made of a semicircular form, commencing two inches to the left of the umbilicus, and ending near the external ring. It was seven inches in length, and the convexity of it was towards the ileum.

After dividing the skin, cellular substance, and superficial fascia, it became necessary to secure a few small arteries. The tendon of the external oblique being exposed, was next divided, and then the internal oblique and transversalis with its fascia. The peritoneum, which now presented, was detached from the iliacus internus and psoas magnus muscles with the fingers, and was pressed with its contents towards the right hypochondriac region, by the assistance of my father. The external iliac was immediately felt, and, by passing the finger towards the sacro-iliac symphysis, the internal iliac was distinctly recognised. The artery was then exposed with the handle of the scalpel, and the ligature passed under with the Philadelphia needle, one inch from the bifurcation. Instead, however, of drawing up the needle part with the hook, I found it more convenient to take it with the dressing forceps. One ligature being passed, it was found necessary, from the great depth of the parts, (being about five inches,) to pass down the knot with Dr. A. E. Hosack's knot applicator. The ligature was then firmly tied, and the parts were brought together with sutures and adhesive plaster.

In this operation the same difficulty existed as in the case of

\* I have, since the operation, understood that the internal iliac has been tied by a Dr. Atkinson, in England, but without success.

ligature of the common iliac, by my distinguished friend Dr. Mott, of New York,—viz. the constant protrusion of peritoneum, from abdominal compression created by the struggles of the patient.

Some pain in the bowels and fever came on a few days after the operation, which was removed by venesection and a laxative. Union by the first intention had taken place to a considerable extent at the first dressing on the eighth day. A considerable quantity of pus was discharged during the first four weeks, at the expiration of which time the ligature came away. The tumor has discharged its contents gradually, and the parts have assumed their natural appearance. The patient has so far recovered his usual state of health, as to be able to walk about his neighbourhood.\*

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#### THE MAMMÆ.

*Observations on Affections of the Mamma, liable to be mistaken for Cancer.* By JOHN PARRISH, M.D. one of the Surgeons of the Pennsylvania Hospital.

FROM much experience in cancerous affections of the breast, I have been led to the conclusion that derangements of structure in that organ, of a nature comparatively innocent, are often mistaken for scirrhus. Not a little of the success which has been attributed to surgical treatment in this terrible complaint has, I believe, arisen from its direction to such cases. My own opinion is, that real cancer is a constitutional affection, and that, in the greater number of instances, even extirpation affords but a slight chance of ultimate safety to the patient. On a future occasion, I may perhaps offer the results of my observation on this point: at present my object is to illustrate, by a detail of facts, the liability of the surgeon to misapprehend the character of tumors in the mamma, and thus unnecessarily to subject the female to severe pain, and to a mutilation which must always be unpleasant, and to a young person often very inconvenient.

I will begin by stating, that even the natural structure of the mamma may be mistaken for scirrhus. Every practitioner who has often been consulted in the complaints of females must have observed that in some women there is an unusual hardness of the breast, without any departure from a perfectly healthy condition. This hardness is occasionally attended with a lobular structure of the gland; and it is not uncommon for the young surgeon to confound this state of things with disease, and to suppose that he is handling a cancerous tumor, when the parts are in reality perfectly

\* Ibid.

sound. Even the experienced hand is not always secure from such a mistake.

I recollect well the case of a lady of this city, who came under the care of my lamented preceptor, the late Dr. WISTAR, and myself, with pain in the breast. We made repeated examination, and, though aware of the occasional hardness of the mamma, were convinced that we could feel a tumor. As the patient complained of much pain, which she referred to a particular spot, and this spot coincided with that in which we supposed the tumor to exist, we concluded to recommend an operation. The patient consented; but in the mean time her mind was so strongly impressed by a dream, in which she thought that a cure might be effected by the application of a certain nostrum, that she was unwilling to submit to the knife till the remedy had been tried. We were not very reluctant to suspend the operation; and it was agreed that she should be allowed time to satisfy her mind. Not long afterwards, Dr. Wistar was attacked by the illness of which he died; and the operation was on this account still further delayed. Sometime after his death, I was called in to see her. Upon making a strict investigation into her case, I was now convinced that the pain in her breast arose from a rheumatic affection, and that what had been taken for a tumor was nothing more than a portion of the mamma unusually firm. The idea of an operation was therefore relinquished: the pain gradually subsided under treatment calculated for the cure of rheumatism; and, though several years have elapsed, there has been no evidence afforded of the existence of cancerous disease.

In another case I was on the point of committing an error which would have caused me much uneasiness, and which I now mention in the hope that my experience may prove useful to others. In the year 1819, I was called to see a young woman with a small tumor in her breast, which so far presented the characters of scirrhus that I conceived its extirpation advisable. The patient very willingly consented. At the time appointed, I went to the house with two of my medical friends, who attended in order to witness and assist in the operation. Before proceeding to use the knife, I placed my hand upon her breast, and was surprised to find, as I thought, that the tumor had much increased in size. My friends who were present also examined it, and thought they could feel a tumor of considerable magnitude. I had even traced the course and extent of the proposed incision, and was about to commence the operation, when, almost by acci-

dent, I touched the real tumor, which remained exactly as when I first examined it. I had mistaken the natural hardness of the breast for scirrhus induration.

So much for the liability of mistaking a natural healthy condition of the breast for scirrhus. The difficulty of forming a correct judgment is much increased when tumors really exist. It by no means follows that every hard, chronic, painful tumor of the mamma is cancerous. In the young female, if the breast remain freely moveable, and the skin present the natural aspect, even though the ordinary symptoms of scirrhus be exhibited, there is much reason to hope that the complaint is of another character, and may be relieved without the necessity of an operation.

I have twice attended a lady affected with a tumor in the mamma. On both occasions it was large, very painful, and of a chronic character, and caused much alarm to herself and her friends; but, by the use of purging, low diet, and discutient applications, it was entirely dispersed.

In another instance, a young woman was placed under my care with a tumor of the breast, accompanied with enlargement of the axillary glands. In this case the discutient plan was employed, without any obvious effect. Dr. Wistar was called in consultation. It was resolved that the tumor should be removed, and the glands of the axilla dissected out. The patient was sent to the country for a short time, and, on her return, I found a very evident abatement of the tumor. This seldom, if ever, happens in genuine scirrhus, and I felt much encouraged as to the result of her case. Though the young woman herself was still desirous that something should be done, I determined for the present not to operate. Between one and two months afterwards, Dr. Wistar again met me in consultation; and it was our decided opinion that the complaint was considerably better. The young woman was about to be married, and had a very natural dread of entering into the new state with a diseased breast. The circumstance was made known to us, and we were desired to decide upon the proper course,—whether the operation should be performed, or the marriage should take place in her present condition. We gave the subject full consideration, and concluded to recommend that she should go home, and wait for a short time the result of that change which appeared to have commenced. Should the tumor increase, she might then come to the city, and have it removed. She followed our advice. The complaint gradually disappeared; she was married; and, when I last heard from her, was the healthy mother of several children. This is a case in which, had an operation been per-

formed when first proposed, we should have honestly attributed to it the credit of the cure.

When, in young persons, instead of a single tumor, there are two or more in the breast, the probability that they are not cancerous is still greater. It is not uncommon for practitioners to be consulted in cases of this kind. Sometimes both mammæ are affected, sometimes only one.

A young woman was supposed to have a cancer in her breast. Dr. PAYSICK and myself attended her. There were two tumors in one breast, and one in the other. We had before seen a case somewhat similar, in which the complaint had disappeared without an operation; but, in the present, it was impossible to decide with certainty whether the tumors were cancerous or not, as they were not sufficiently advanced to display the requisite characters. We resolved, however, to postpone an operation till efforts had been made to discuss them. A low diet, with the use of saline purgatives, and a mercurial plaster to the breast, were recommended; and the patient was advised to go home, and return to the city if there should be any increase of the complaint. Instead, however, of increasing, the tumors gradually diminished, and at length disappeared; nor have they since returned.

Scrofulous affections of the breast not unfrequently occur, and are sometimes confounded with cancer. Several cases of this kind have fallen under my observation.

A young married woman, many years ago, was sent to me from Bucks County, under the impression that she had a cancer of the mamma, which required an operation. Her breast was considerably enlarged, presenting an irregular surface, with redness of the skin. The axillary glands were also diseased. Considering that, if the complaint were cancerous, it had proceeded so far that an operation would be of very doubtful success, I deferred it for a short time. Happily the tumor became soft, and fluctuation was observable. It was opened, and scrofulous matter was discharged. The patient returned to the country, and gradually regained her health. In this instance there was none of that contraction or wrinkling of the skin which generally accompanies genuine cancer when it has advanced to the surface. But, as the disease is sometimes attended with a swelling of the breast and a smooth skin, this circumstance did not enable me to form a certain diagnosis. Subsequent observation, however, has taught me that there are peculiarities in the appearance of a scirrhous breast, even when swollen and smooth, by which it may generally be distinguished. Instead of a diffused redness, I have usually noticed, under these circumstances, a stellated

appearance of the skin, red spots being scattered like spangles over the surface. This peculiarity is so striking, that I believe I could now distinguish, by the eye alone, between such tumors and mere scrofulous enlargement. The experience acquired from this case was of great use to me in one which afterwards occurred.

Sometimes deep-seated abscesses, of a scrofulous nature, form in the breast, and, being attended with much pain, are liable, without care, to be mistaken for scirrhus. Two very interesting cases of this kind have occurred to me, both in young married women, with infant children.

The subject of the first case was sent to me from the country. She had been for several months affected with pain in her breast. Some treatment had been employed for her relief, but without success, and a tumor had formed. When I first saw her, I examined the breast carefully, and I thought I could feel a deep-seated, indistinct fluctuation. This circumstance was sufficient to deter me from operating, till I had satisfactorily ascertained the nature of the tumor. I stated to her friends my hopes that the complaint might prove to be scrofulous, and proposed that a lancet should be introduced into the tumor, in order to ascertain the fact. Even should I be disappointed in my opinion, little additional pain would be occasioned, and the operation might then proceed as well as though nothing had been previously done. Their consent having been readily given, I took the lancet, and, in order that I might be certain to reach the affected part, plunged it up to the hilt in the breast, in the direction of the tumor. When I withdrew it, only a drop or two of blood followed, and I began to fear that my hopes had been unfounded; but the blood soon began to flow more freely, and a little pus made its appearance at the orifice of the wound. I enlarged the opening, and was delighted to perceive that scrofulous matter escaped freely.\* The parts healed; and the complaint ultimately disappeared, leaving the breast perfectly sound.

The second case was equally interesting. I suspected that the complaint might be a deep-seated scrofulous abscess, for I thought I could feel fluctuation; and yet any surgeon, not on his guard, might have been led into error, as the fluctuation was very indistinct. I obtained permission, as in the former case, to explore the tumor before attempting an operation. Scrofulous matter immediately followed the withdrawal

\* [Genuine pus, so far as Dr. Parrish has observed, is never found in cancerous affections. —EDITOR.]



of the lancet. The breast healed, and occasioned no further trouble to the patient.

In all deep-seated tumors of the breast, where the evidences of cancer are not unequivocal, I would advise the adoption of the plan pursued in the instances above mentioned. An experienced surgeon, with a delicate sense of touch, can generally detect fluctuation, if there be a collection of matter: but should he be unable to do so, what is more safe and easy than to make a puncture with his lancet before commencing the operation. If an abscess exist, it is thus rendered evident; if not, and extirpation becomes necessary, no harm has been done. I believe that such cases have often been mistaken for cancer, and operations performed without the least necessity.

Cysts occasionally form in the breast which are totally free from any cancerous disposition. Within the last year, a middle-aged woman from the country came under my care, with tumor of the mamma. Upon a careful examination, I discovered an obscure, deep-seated fluctuation. There were two tumors. I punctured them both with the lancet, and a serous fluid escaped. No unpleasant consequences resulted. Such an affection might have been readily confounded with scirrhus, and the mamma have been extirpated.

I will close the paper by observing, that we are liable to be deceived as to the nature of the action which sometimes takes place in the cicatrix, formed after the extraction of a cancerous tumor. If it be observed to enlarge, thicken, and assume a red colour, at the same time becoming tender and painful, there is reason to fear that the complaint has returned. But it occasionally becomes very painful, without undergoing any change in appearance or structure. In such cases, the disorder is probably purely nervous, and a resort to the knife wholly unnecessary. I once witnessed a case of this kind under the care of another surgeon. The pain was so severe and continued, that it was determined to remove the cicatrix, under the impression that the parts beneath might be found in a diseased state. But they were perfectly healthy, and the pain, in all probability, arose from nervous irritation.\*

\* Condensed from the North American Medical and Surgical Journal, for April 1828.

## HOSPITAL REPORTS,

*(Principally condensed from various Periodical Publications.)*

## FEVER.

*Cases of Fever, in which the Hydrochloruret of Lime was used, by Dr. REID, at the FEVER AND DYSENTERY HOSPITAL, DUBLIN.*

I.—JAMES DOYLE, admitted on the 8th of March, having been thirteen days ill of fever. He complained of severe headache; bowels costive. Having put him under a treatment consisting of cold applications of vinegar and water to his head, giving him the saline diaphoretic mixture every second or third hour, with occasional employment of purgatives when necessary, he became apparently convalescent on the 16th.

On the 22d, he complained of pain under the sternum, which I relieved by the application of eight leeches, and a little saline diaphoretic mixture.

On the 25th, he had a complete relapse of fever. By putting him under proper treatment, which consisted principally of mercurial medicines, on the 29th he became again convalescent. A slight cough, however, still remained; for which he was directed an expectorating mixture.

2d April.—A friend having been permitted to see this patient yesterday, through mistaken kindness induced him to drink some wine. In the night he complained of most violent pain in his head. He now lies nearly insensible. Low muttering delirium. Tongue deep yellow, dry, and furred; great subsultus.

Half an ounce of the mixture, with Hydrochloruret of Lime and Tincture of Columbo, was directed to be given to him every second hour.

3d.—Much better in all respects; general warm perspiration, not profuse; but still some delirium and subsultus.

Perstet.

4th.—Tongue cleaning; subsultus gone. No delirium.

5th.—Still continues to improve. Tongue dry, and he cannot put it outside his teeth, though he apparently makes considerable effort when desired to do so.

I directed a blister to his neck, and to continue the medicine as before.

6th.—Much foetid discharge from the blister. Continues to improve; can now freely put out his tongue when desired. It is now moist and clean at the edges. He has some appetite today.

7th.—Still improving.

The Diaphoretic Mixture was now substituted for that with the Hydrochloruret.

12th.—Up and dressed, sitting on his bedside. Well.

This was one of the most remarkable cases I have witnessed of the efficacy of the hydrochloruret; whether it be considered with reference to the severity of the disease, or to the rapidity of the patient's recovery.

II.—H. C. was nine days ill of fever on the 19th March. She was supposed to have taken the infection by going into lodgings where fever had been previously; but did not know this circumstance until the 18th. She appears of very delicate form, light complexion, and much marked with the small-pox. Complaints of great pain in left side, headache, flushing; pulse extremely quick, rather ganglionic. Tongue dry and furred.

I directed to have twelve leeches applied to her side, and to take an ounce of the Saline Diaphoretic Mixture three times a day.

From this treatment some relief was obtained: however, on the 22d, cough and the febrile symptoms were increased; the headache was severe. On the 24th, a red papular eruption appeared very general over the chest, arms, and back; the intervening skin seemed white and natural; febrile symptoms still increasing; great debility; low delirium; great coldness of the extremities; bowels free, but evacuations very dark-coloured.

Half an ounce of the mixture with the Hydrochloruret of Lime was directed to be taken three times a day.

25th.—Tongue moist; easy sleep this morning; extremities warm. No apparent change in the eruption.

27th.—Eruption nearly gone; stools now natural. Has continued steadily getting better since 24th. Still some headache; tongue clean. The indications for employing the hydrochloruret having now disappeared, she was directed the saline diaphoretic medicine; and on the 31st she was convalescent.

She continued gathering strength until the 5th April, when a swelling of the right ear attracted notice. On the 6th, the swelling was increased, and erysipelas became developed. This was treated as usual in such cases, and on the 15th her convalescence was complete.

III.—Benjamin Hepinstall was two days ill of fever. On his admission, 13th March, he complained of pain in the abdomen, which was extremely tender on pressure, and he exhibited an expression of considerable anxiety. These symptoms being relieved, his head became much affected. On the 18th, he was apparently convalescent. On the 19th, however, the ganglionic disease again made its appearance. The former treatment was adopted, and leeches were applied to the abdomen, without apparently having any efficacy towards arresting the progress of the disease.

On the 22d, he lay on his back. There was almost total prostration of strength; pulse scarcely perceptible; occasional cough. The entire surface of the body, limbs, and tunica albuginea of the eyes, of a dirty yellow colour. A dull purple circumscribed colour in the cheeks; tongue dry and loaded. Considering this patient in a proper stage of the disease to derive benefit from the Hydrochloruret of Lime, a mixture with this medicine was directed to be taken three times a day.

23d.—After taking the medicine three times yesterday, he had a quiet night. Slept well. Tongue now cleansing and moist.

Yellowness of the skin not apparently changed, but the purple flush has disappeared from his cheeks. Pulse full and calm. He continued to mend steadily under this treatment until the 26th, when all symptoms of ganglionic disease being gone, his pulse was become spinal, and he complained of great pain in his back.—Finding that the mixture with the Hydrochloruret of Lime had apparently no effect upon these symptoms, I reverted to the usual treatment in such cases, and on the 31st March he was discharged cured.

IV.—The following case exhibits the influence of the Hydrochloruret of Lime in controlling disease of the pulmonary organs, resulting from febrile excitement.

Ann Lenon was admitted into the fever ward No. V. on the 7th February, 1827. She complained of great headache, pain in her bowels, and other febrile symptoms, in such severity as to require to be bled largely on two successive days.

On the 10th, she was getting worse, and a blister was applied over the whole abdomen.

On the 11th, better.

13th.—Abdominal pain quite relieved, but complained of severe pain now in her chest. A blister was applied with some benefit.

16th.—The pain in her chest being still severe, another blister was applied, and a pectoral mixture was ordered.

17th.—Breathing extremely difficult, which induced Dr. BRERETON, whose patient she then was, to direct that she should again be bled.

By this bleeding she was much relieved, and, her improvement continuing progressive, on the 20th she was remitted to the convalescent ward.

She continued apparently to recover strength until the 6th March; she then complained of pain and sense of fulness in her chest. I directed leeches to be applied, from which she derived some relief. She complained, however, of sense of constriction about her throat. Soon afterwards she began to expectorate a considerable quantity of thick viscid mucus. Countenance bloated. As the disease advanced, in a few days she became affected with severe rigor, which sometimes continued for several hours. Her voice became nearly extinct. At length she could only swallow liquids, and was threatened with suffocation at every moment.

It would be unnecessary to detail the treatment which I adopted up to this period: it was varied accordingly as the circumstances of the case appeared to require. No plan of treatment, however, which I put in force, appeared to have any influence in arresting the progress of the disease.

On the 24th March, the state of her case was as follows: She had rigor every day since the 17th; voice and appetite almost gone; mucous rattle in breathing; could take no food, but had constant

thirst, which she attempted to relieve by sipping cold water; expectoration thick, and got up with difficulty; cheeks bloated with purple hue; tongue furred.

On the 25th, I directed the mixture with Hydrochloruret of Lime every second hour.

29th.—She appeared to get better on the 26th, and continued steadily to improve: her appetite was returning, her tongue was clean and moist, and since the 25th she had not a rigor. Having persevered in the same treatment a few days longer, and all the bad symptoms having apparently subsided, I thought it advisable to diminish the quantity of the mixture to one dose daily. She soon, however, changed for the worse, the bad symptoms threatened to return, and I found it necessary again to direct the medicine three times a day. This I continued till all danger of relapse seemed over; and on the 3d April her convalescence was complete.\*

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DYSENTERY.

*Cases of Dysentery, in which the Hydrochloruret of Lime was employed, by Dr. REID, at the FEVER AND DYSENTERY HOSPITAL, DUBLIN.*

I.—JOHN COYNE was admitted into the hospital in the last stage of dysentery, which came on after a tedious fever. The discharges consisted of a bloody sanies, intermixed with a dark-coloured matter, the smell of which was quite overpowering and offensive. The stools were passed involuntarily, and the patient was reduced to an idiotic state. I considered that erosion of the intestines had taken place, so that his death was inevitable. I directed ten grains of the Hydrochloruret of Lime to be added to the common enema of the Pharmacopœia, and to be administered to the patient night and morning. The stench, which was so intolerable, was soon corrected, the evacuations became more natural in appearance, and pure blood was sometimes discharged. His tongue became clean, and grew moist, but exhaustion continued to increase; notwithstanding which, he survived a fortnight after his admission.

II.—I directed similar injections for Rose Macnamara, who was labouring under dysentery after fever, in the female convalescent ward. On the 11th of November, 1826, the stench from the incessant discharges from her bowels was so intolerable, that the other patients declared they could not continue in the ward. The pain she suffered was at times excruciating.

The first day after the injections with the hydrochloruret were employed, the patient experienced considerable relief of all the symptoms. In a few days the fœtor was corrected. The progress

\* From the Transactions of the Association of the Fellows and Licentiates of the King and Queen's College of Physicians in Ireland.

of the cure was gradual and steady, and she was discharged well on the 6th December. She has continued perfectly well to the present moment.

III.—James Heron, a very old man, and apparently of a broken down constitution, was admitted on the 22d March, affected with dysentery. He had frequent evacuations, occasionally mixed with blood, and attended with great pain in the abdomen. Tongue extremely loaded; urgent thirst; great debility; some appetite. He became convalescent from a tedious and severe fever on February 20th. The dysenteric symptoms came on soon afterwards, and progressively increased up to the present time. I directed a mixture with Acetate of Ammonia and Camphorated Tincture of Opium; but, not finding any relief from this treatment, I directed on the 24th a mixture, consisting of ten grains of the Hydrochloruret of Lime, with two drachms of the Tincture of Columbo, in four ounces of water and two drachms of syrup; half an ounce to be taken every hour.

25th.—His tongue began to get moist, though still loaded with brown fur.—Perstet.

26th.—Tongue cleansing; evacuations changing to a more natural appearance. He has not had occasion to go to the chair more than eight or ten times in the twenty-four hours. Longer intervals from pain, but at times he thinks it more severe than before.—Perstet.

27th.—Feels better in all respects; tongue cleansing.

Let him take his mixture only every third hour.

28th.—No pain since last visit. Was up but four times. Evacuations nearly natural; says he feels himself almost well.

Let him take his mixture only night and morning.

29th.—Convalescent.

31st.—Discharged cured, and says he has not felt himself so well in health for many years.

IV.—William Carl, admitted on 31st March, affected with dysentery upwards of three weeks. Complains of severe pain in his bowels; incessant alvine evacuations of thin foetid matter, intermixed with a quantity of bloody sanies; great emaciation and debility; some appetite. No rest at night, owing to the constant necessity of relieving his bowels from their morbid contents. Some swelling of the abdomen, and his legs oedematous. Had been upwards of six weeks in Sir Patrick Dun's Hospital, under treatment for dropsy. Had been tapped once while in that hospital, and a vast quantity of water, he says, was drawn off. His present disease commenced about a week after having been discharged from Sir Patrick Dun's.

On the 2d April commenced regular treatment with Hydrochloruret of Lime. During the first two days from his admission, I considered it necessary to give him medicine, so as to bring him

into a proper state to employ this substance with effect. I now directed ten grains of the Hydrochloruret of Lime to be dissolved in four ounces of diluted syrup, to which were added twenty drops of essential Oil of Carraway; half an ounce to be taken every hour.

5th April.—Continued the medicine as directed on the 2d; feels in general rather better; some evacuations from his bowels, now not tinged with blood.

7th.—No blood since yesterday; pains in abdomen very slight, and seldom.—Perstet.

9th.—Still mending in all respects; swelling of limbs subsided.

Let him take his medicine only three times a day.

11th.—Mending in every respect. Countenance filling up. Stools now slimy, without pain or uneasiness.

Let him take the mixture only night and morning.

12th.—At stool but six times last twenty-four hours. Evacu-ations thin and whitish. No pain. No blood passed. Countenance much improved. Strength returning. Tongue moist with white mucous covering. He has now his clothes on, and is able to walk.\*

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MISCELLANEOUS CASES.

*Case of open Foramen Ovale.*

JAMES SPELMAN, æt. eighteen, was admitted into the HARDWICKE HOSPITAL, February 6, 1827, as a fever patient, under the care of Dr. CRAMPTON. The thoracic viscera appeared to suffer from inflammation; he had a severe cough; complained of pain in different parts of his chest, chiefly at the left side; expectorated blood, and was distressed in his breathing. After two venesections and other remedies, on the 14th he appeared convalescent. From premature exposure, however, in a ward, which at this season was unusually cold, he soon suffered a relapse. The symptoms which now assailed him were those of acute rheumatism, with which almost all his joints were occupied, being excessively tumid, painful, and accompanied with a high degree of fever. In a few days the swellings of the joints abated, but the rheumatism became metastatic, the pectoral organs being again attacked, more especially the heart, in the region of which he appeared to suffer extremely. The pulse, during the first attack of fever, had been full and frequent, but regular: in the subsequent rheumatic attack, it preserved the same character; but, as the attending pyrexia appeared to subside, an occasional intermission or irregularity was observed.

It was necessary to adopt a very active practice. Repeated bleedings and other modes of relief were resorted to, otherwise it was obvious his respiratory organs would have been overpowered. It was equally clear that a cold fever ward was not a place suited

\* Ibid.

to his case, which had now become complicated, but of a more chronic character. Indeed, the conclusion which Dr. C. was at this time disposed to adopt was, that severe organic lesion in the heart and lungs had occurred as the sequela of fever and acute rheumatism in a subject perhaps strongly predisposed to disorder in those important viscera.

On the 27th of February, the symptoms were—pain in the region of the heart, severe cough with a croupy sound, much mucopurulent expectoration, great distress in his breathing. At this time he stated, he had for years been occasionally subject to pain in the left side, but particularly after running, or any active exertion; his pulse extremely rapid, sometimes irregular; countenance pale, feet œdematous. The stethoscope indicated acute bronchitis, with hypertrophy, and disordered action in the heart, the motions of that organ being tumultuous and irregular.

On the 3d of March, the pulse became slower, about eighty, but very irregular.

On the 4th, he suffered extreme distress in his breathing,—or *smothering*, as he expressed it.

On the 5th, pulse again so rapid as not to be counted; he complained of great pain in the region of the heart. He was evidently growing worse.

On the 6th, a slight amelioration took place, but from this period until the 10th he gradually sunk. On this day he expired.

*Dissection.*—The thoracic cavity was examined on the 12th. On opening it, the lungs did not collapse, but the external appearance of this organ was healthy; the parenchymatous tissue exhibited some portions red, congested, and evidently inflamed; the bronchia vascula, and filled with a muco-purulent effusion.

Pericardium contained about two ounces and a half of fluid, in which a considerable quantity of coagulable lymph was seen; inner surface of this membrane not inflamed, but that portion of it which is reflected over the heart showed marks of inflammation in several places; both ventricles were much enlarged, exhibiting considerable hypertrophy; the semilunar aortic valves showed recent fleshy or *cauliflower* excrescences attached to all of them. Both the ventricles were quite filled with a dense, white coagulum, firmly attached to their parietes. The commencement of the aorta appeared unusually narrow, in proportion to the heart and to the subject; that of the pulmonary artery greatly enlarged. The auricles of the heart were also in a state of considerable dilatation: but the circumstance which attracted attention most was, that the foramen ovale was open; but the manner of this opening must be more fully described. The septum between the auricles exhibited an oval depression, or attenuated space, of about one-third of an inch in diameter, guarded only by a thin membrane; but at one side it was evidently pervious and open, with a rounded and thickened edge. This membrane acted like a curtain or valve; when viewed or pressed from the left auricle, it was closed, the curtain or mem-



brane pressing close, and overlapping the opening. Viewed from the right auricular cavity, or touched with a probe, it opened, and allowed a free passage, fully as large as a goose's quill, compressed so as to exhibit an elongated or oval section. The blowpipe exhibited the same difference of a closed or open space, as it was used from the left or right side of the auricular septum.

There was no trace or appearance of inflammation in the auricular portions of the heart, at least none could be discerned on the inner membrane.

In the case of Spellman, the following explanation might perhaps be hazarded. That previous to his feverish and pulmonary attack, the blood returning from the veins, and meeting no obstacle from entering the pulmonary artery, (which, as already observed, was larger than natural,) passed altogether the narrow auricular aperture, and took the easier and wider opening into the pulmonary artery; the synchronous movements in the left cavities keeping pace with those on the right. The fulness of the left auricle occasioned its contents to close the curtain by pressing from left to right. This exertion was also rendered more powerful by the increased strength of the left ventricle, and the narrowness of the aorta. By this mechanism and procedure, the heart was kept in a condition very nearly approaching a natural state, the cross valve only opening occasionally on some sudden struggle, or mental emotion, which might disturb the pulmonary circulation. But when the bronchial membranes became thickened, the bronchia filled up, and the lungs themselves less pervious from inflammation, an obstacle was presented to the free passage of the blood through the branches of the pulmonary artery, a regurgitation took place, the oval curtain was thrown open by pressure from right to left, and the anomalous circulation now took place to a greater extent, and in a more permanent manner. Additional sources of tumult and irregularity must have arisen from the metastatic inflammation of the heart itself, and the sudden development of the fleshy vegetations which interfered with the proper action of the semilunar aortic valves. Under the pressure of such aggravated sources of suffering, dyspnoea from congested lungs, a perturbed circulation, effusion into the pericardium, the formation of coagula, which nearly filled both ventricles, (all occurring in succession,) the heart ceased to act, and thus the patient's agonies were at an end.\*

\* Ibid.

*Case of Extirpation of an unusually large Steatomatous Tumor from the Neck.*

THE subject of the operation was Michael Legge, aged twenty-seven, residing in the parish of Ballingarry, of a vigorous, athletic constitution, and accustomed to the laborious occupation of a farmer.

About thirteen years ago, after a severe pulling of the right ear, and pressure of the thumb behind the angle of the jaw, one of the lymphatic glands situated there became inflamed, and formed a tumor. It was not, for a few days, attended with much pain, and was entirely neglected during several years, though it increased slowly.

Sixteen months ago, he was examined at a county infirmary, at which period the tumor had not attained half its present size. After a consultation had been held on his case by five professional gentlemen, it was considered not advisable to attempt an operation. Shortly after his return home, while sparring with a fellow labourer, he received a blow on the tumor which produced violent inflammation. Fomentations and warm poultices were applied, which not being productive of any relief, but, on the contrary, being found to increase his sufferings, were of course discontinued.

From this period, and during the space of a year, it grew to double its previous size, and though it had been hitherto but little sensible on pressure, and had produced no inconvenience except occasional shooting pains during changes of the weather, and slight headaches, more alarming symptoms, such as great pain, dyspnœa, and sense of suffocation, ensued, as the tumor grew and protruded into the fauces.

Being about this time on a visit in his neighbourhood, Dr. DALY accidentally met with him, and, after a careful examination of the tumor, was of opinion that its removal might be easily effected.

It occupied nearly the whole of the right side of the face and neck, extending from the zygomatic arch, under which it seemed imbedded, to within two inches of the clavicle, in which direction it measured in its anterior circuit eleven inches and a half.

The ear was pushed up towards the temple, so that its lobe was expanded over the tumor, and the sides of the meatus externus so closely pressed together, that hearing was entirely obstructed on that side.

Posteriorly it extended to the distance of five inches and a half from the lobe of the ear, and anteriorly over the upper and lower maxillæ, and to within an inch of the angle of the mouth: in this direction it measured from behind, round the most projecting point of its surface, to the sulcus in the skin, parallel to the trachea, twelve inches and a half. The skin covering it was in some spots rather of a livid hue, where some superficial ulcers had been produced by the irritating applications formerly used; but, though very tense, it did not adhere to it. The surface was studded with

irregular knobs; several veins extended in various directions over the tumor, but the external jugular was found below and behind it, of its natural size. The tumor did not appear to adhere to the maxillæ, as it could be moved a little to either side, and slightly rotated, though it could not be pulled forwards. The carotid was felt beating deeply under it near the clavicle; but, near the angle of the jaw, it could not be ascertained whether the vessel ran through it or under it. The jaws, anteriorly, could only be separated about an inch. On looking into the mouth, the tumor appeared encroaching on both gums; it covered three of the inferior molares, and one of the superior molares had been extracted in order to prevent the tumor from being pinched by it during mastication. The tumor also protruded inwards behind the velum palati, which it pressed forwards and laterally, insomuch that the uvula was completely thrown to the left side, thereby effacing altogether one of the arches of the soft palate. The velum had become more vascular, and, upon the slightest changes of weather, was attacked with inflammation, bringing with it difficult deglutition, and the other painful accompaniments of *cynanche tonsillaris*. From the sound of the voice, it was evident that this portion of the tumor pressed on one or both of the posterior nares, and the man was latterly obliged to be awakened two or three times at night, as the swelling pressed on the epiglottis, and threatened suffocation. This symptom, together with the tendency to *cynanche*, and the perfect mobility of the tumor, pointed out at once the propriety and necessity of extirpation, particularly as the patient's state of health was so favorable to it.

The operation was commenced by making two semilunar incisions on a line with the lower jaw, the upper one about an inch below it, and both extended so as to include a portion of integuments fourteen inches in length, by five in breadth, which was left adhering. Upon cutting through the integuments, the *platysma myoides*, instead of being spread in a sheet over the tumor, was collected at different points into bundles of pale fibres. As Dr. Daly removed these by the knife, and approached the base of the tumor, the latter receded from the face, and assumed a more globular form, with a narrow neck protruding inwards amongst the deep-seated muscles, vessels, &c. in that triangular space formed by the upper and anterior edge of the sterno-mastoid muscle, the base of the under jaw, and the digastric muscle.

Hitherto no arterial branch of any size had been met with, but near the neck of the tumor three large branches were divided, and immediately secured by ligatures: one of them, the posterior auris, which could be felt pulsating under the skin before the operation, another very near it, apparently arising from the facial, and a branch of the lingual, which entered into the base of the tumor, and chiefly supplied its growth. The facial artery remained untouched: we could feel it pushed over near the chin. As the tumor could not be twisted out, the surgeon was obliged to proceed

cautiously, raising the layers of fascia with a dissecting forceps, and separating them with the edge and handle of the knife until the parotid gland appeared, the lower lobe of which lay upon the tumor, and was bound down to it by a strong fascia, a part of which Dr. Daly at first cut through, and subsequently so much as to enable him to turn up the lower portion of the parotid. Nearly the whole body of the tumor was now disengaged, with the exception of its neck, which was attached by strong ligamentous bands to the angle and ramus of the jaw on one side, to the mastoid process on the other, above to the parotid gland and its fascia, and to the cartilage of the ear; below, it was more loosely connected, as its adhesions there were torn through with the handle of the knife. Neither the internal nor external carotid, nor jugular vein, was in any way endangered or exposed.

Fortunately a quantity of fatty substance and lymphatic glands, which we cautiously avoided, lay between them and the tumor; and, on dividing the above-mentioned ligamentous bands, the root of the tumor suddenly gave way, the patient exclaiming that his throat was pulled out.

During our previous examinations, as the tumor which we felt and observed in the fauces did not move when the external one was stirred in all directions, the surgeons did not conceive it to be a part of the external tumor, but to be the tonsil and adjoining parts pushed in before it: however, they were deceived in this opinion, as they now found it to be caused by a prolongation of the large tumor. This lesser or internal tumor was of a pyriform shape, the base being in the throat.

The body of the large tumor being in the way, and not wishing to make any incisions in such a deep situation, the surgeons were deliberating for an instant about cutting it off, and then with more ease separating the smaller one; but a slight pull having torn part of the sac which contained the small tumor, (which was much thinner than that which contained the larger one,) a quantity of fatty gelatinous matter gushed out, the tumor contracted, and slipped out of a bed of loose cellular membrane without farther trouble. It was completely removed, not a particle being left behind. The whole tumor weighed two pounds fourteen ounces, exclusive of the portion of its contents which escaped, and which might make one or two ounces more. The blood lost during the operation was chiefly venous, and did not exceed twelve ounces. On looking into the cavity left by the tumor when the parts collapsed, its depth appeared formidable indeed, as the clenched hand might easily be buried behind the jaw, and nothing but the pharyngeal muscles and mucous membrane prevented the fingers from passing down the œsophagus. The epiglottis was easily and distinctly felt, but the tonsil of that side was not to be found: it was supposed to have been either pushed deeply backwards and upwards towards the base of the skull, or, what is more likely, absorbed.

The base of the large tumor lay with its upper edge covering the parotid gland, which was pressed backward, and in great part absorbed; the smaller tumor ran under it, likewise pressing it upwards. The external carotid was pressed inwards, and to one side. The styloid process and its muscles lay below the neck of the tumor, but none of them were laid bare by the knife. The masseter, buccinator, and upper portion of the sterno-mastoid muscle, were felt covered by fatty substance and condensed cellular membrane.

Having carefully sponged the wound, Dr. Daly tied every minute bleeding point which could be perceived, to the number of three, and washed the whole surface of the flaps with a saturated solution of alum. Having saved a sufficient quantity of integuments, the flaps were easily brought into proper position by adhesive plaster. Compresses dipt in cold water were applied externally, and the whole supported by a double-headed roller round the head and neck.

The usual custom of stuffing the wound with dry lint was not adopted, as it was wished to unite as much of it as possible by the first intention, and thereby diminish the subsequent inflammation and suppuration.

The man has been now (July 10th) for some weeks engaged in his usual occupations, the wound having healed completely over the three silk ligatures; the knots and a portion of the threads of which remain within, and produce no inconvenience. The wound measures now scarce a third of its original extent.

Immediately after the operation, the ear of the affected side recovered its position, and the hearing was restored, but he complained of being unable to close the right eyelids; the mouth was slightly turned to the opposite side, but, as the fulness of the cheek of the affected side disappeared, these symptoms considerably improved. However, as several branches of the seventh pair of nerves must have been unavoidably divided during the operation, it is probable that he may always labour under a partial paralysis of the right cheek.\*

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*Case of Indurated Enlargement of the Uterus, successfully treated with Iodine.*

JANE REILLY, aged forty, \* \* \*. After some hesitation, she now acknowledged there was a hard tumor in the vagina, easily felt by herself, and very painful to the touch, which had gradually increased in size, without any discharge from it; and that menstruation had ceased for some months.

Dr. THETFORD prescribed various sedatives to assuage pain and procure sleep, and directed the aperients to be continued until the faecal discharges had become natural.

\* Ibid.

This last object being obtained, he commenced an accurate local examination on the 9th of May. The attempt to introduce a finger into the vagina was met immediately within the labia by a projecting substance, which was easily ascertained to be the os uteri, somewhat enlarged, and firmer than natural; beyond, and connected with which, a large tumor of osseous hardness opposed resistance. He succeeded in introducing a portion of the index finger between it and the cavity of the sacrum; but, laterally and anteriorly, any introduction between it and the other bones of the pelvis was impracticable. There could not exist a doubt of the tumor being the uterus of great size, and in a state of induration. Dr. T. ordered alterative doses of the corrosive muriate of mercury, with pills of conium and hyoscyamus, and enjoined a strict attention to the state of the bowels.

This course was persevered in for thirty-six days. Her health amended, and she was able to walk in her room with less difficulty and pain; but neither the size nor hardness of the uterus was reduced, nor was the pain of the pelvic bones much alleviated; and her spirits were quite depressed, from a conviction that her case was incurable.

From the moment that Dr. Thetford ascertained the nature of her disease, he had resolved on prescribing iodine, should the remedies then contemplated fail. Accordingly, on the 14th of June, he directed seven drops of the tincture to be taken three times daily, in a wine-glassful of cold water; which dose was augmented gradually to ten drops, every other medicine being discontinued, except castor-oil when required.

The result was speedily favorable: her spirits revived; appetite greatly improved; intestinal evacuations in general sufficient without any aperient; urine passed in greater quantity at a time, and with diminished pain; ability to take increased exercise; rapidly progressive absorption of the diseased substance of the uterus; periodical return of the catamenia.

On the 2d of August, she was perfectly restored to health, and continues so.

It may be proper to state, that this individual was a patient of ST. THOMAS'S PARISH DISPENSARY, and unable to aid the effects of medicine by requisite diet.\*

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*Case of Poisoning by Cantharides.* By A. W. IVES, M.D.  
of New York.

ON the evening of the 7th of March, 1827, Dr. Ives was called to the HOUSE OF REFUGE FOR JUVENILE DELINQUENTS, to see William Cummings, a healthy athletic lad, seventeen years old. In a paroxysm of anger, he had swallowed about an ounce of Tincture of Cantharides, supposing it to be laudanum. He was seen at nine o'clock, about an hour and a half after the poison was

\* Ibid.

taken, labouring under the following symptoms: Hurried respiration, flushed countenance, eyes red and suffused with tears, profuse ptyalism, small but highly accelerated pulse, convulsive agitation and trembling, acute pains in the region of the stomach and bladder, with such exquisite sensibility of these organs that the slightest pressure was instantly followed by general convulsions.

An hour previous to the arrival of Dr. Ives, the apothecary of the house had given the patient a scruple of the Sulph. Zinc, and he had subsequently taken ten grains of the Sulphate of Copper, by the direction of a medical friend. As he had not yet vomited, and the symptoms continued to increase in violence, one drachm of ipecacuanha was administered; and, at the expiration of twenty minutes, he was bled to sixteen ounces from the arm. The operation was followed by faintness and free vomiting, and the convulsive action became for awhile suspended. He was now ordered two ounces *Ol. Ricini*, and, to accelerate its operation, frequent mucilaginous injections; and, should these fail of producing free evacuations, the oil to be repeated in four hours. He was also directed to drink copiously of linseed tea, to have fomentations applied to the abdomen, and, in case of a recurrence of the convulsions, a laudanum injection after the operation of the cathartic.

It was found necessary to repeat the oil in the course of the night, after which full dejections took place. Convulsions of the limbs occurred at intervals, and also long-continued and painful priapisms.

On the morning of the 8th, the patient was in some degree relieved from the violent symptoms of the preceding evening. His mind was calm; there was but little febrile excitement, though his pulse was quicker and skin somewhat dryer than in health. He was still unable to bear the least pressure over the epigastric and pubic regions, and he had passed no urine.

He was directed to be cupped over the hypogastrium; to take of the following mixture: *Sp. Eth. Nitric.* ℥ss.; *Sp. Acet. Ammon.* ℥iv. M. half an ounce every two hours.—Linseed and barley tea at four o'clock P.M.—Repeat the *Ol. Ricini*, fomentations, pediluvium.

9th, nine o'clock A.M.—During the preceding day he continued comfortable; full evacuations followed the use of the oil, and the spasms disappeared. In the evening, however, an exacerbation of the symptoms ensued; the pain about the bladder increased; priapism returned, and, before the next morning, wild delirium. At this hour he is composed, complains of tenderness over the bladder, particularly on pressure, but is calm and comparatively comfortable; pulse eighty in a minute, with slight increase of action; a thin white coat upon the tongue.

V.S. to ℥viij.—*Ol. Ricini* at two o'clock P.M.—Fomentations to be continued through the day.

10th.—At eight o'clock this morning, Dr. Ives found him in a state of complete insensibility. About seven o'clock, the evening

before, the convulsions returned with appalling violence, and continued for two or three hours, when there was an interval of quiet and reason. At two o'clock in the morning, after having complained for a short time of severe pain in the head, he sunk into a state of coma, in which he continued at the time of the visit.

Semicupium. Strong sinapisms to the back of the neck, feet, ankles, and legs. Warm stimulating injections.

11th.—At ten o'clock A.M. the condition of the patient apparently much improved. Four hours after the last visit, he had a copious evacuation from the bowels, and at the same time voided eight or ten ounces of high-coloured urine. In the course of the day he occasionally complained of pain in the head, and at times had slight delirium, but these symptoms subsided after repeating the sinapisms. He has passed no water since yesterday afternoon.

Blister to the nape of the neck. Sinapisms above the pubes.—Calomel ten grains, to be followed by Castor-oil.

The evacuations from the bowels were from this period free and natural, and the healthy secretion of the urine was restored. The patient recovered rapidly, so that in one week he was able to return to his customary employment, and to eat with a good appetite of the usual diet of the house. He seemed to regret sincerely the folly and rashness that had well nigh destroyed him; and from this time was obedient, faithful, and industrious, and apparently free from all symptoms of disease, until the 14th of April.

About ten o'clock this day, whilst employed in whitewashing, he was suddenly seized with severe pain in the head, pain in the right side, chilliness, and trembling, and shortly afterwards with universal spasms. (He was from this time under the immediate direction of Dr. STEARNS, who was in attendance at the Refuge, and in the hospital, when Cummings was brought in.) He was immediately directed an emetico-cathartic, and during the reaction which succeeded the attack was bled largely.

By these means he appeared to be relieved of pain, and the spasms subsided; but he soon after sunk into a comatose state, and remained in it till the next morning.

Fomentations. Pediluvium. Sinapisms to the thighs and feet. Blister to the nape of the neck.

15th.—In addition to the above means, he was this morning directed fifteen grains of Calomel, and subsequently Sulphat. Soda in sufficient quantity to promote free evacuations from the bowels. He was again for a few hours roused from lethargy, but at one o'clock P.M. relapsed; and thus, as the force of disease or the power of remedies predominated, was alternately comatose and rational till morning.

16th.—He spoke rationally and intelligibly, and his pulse, eyes, skin, and general appearance, seemed to indicate a favorable crisis. He was now put upon the use of small doses of Calomel and Dover's powder, as an alterative.



At five o'clock of the same day, he was again attacked with severe convulsions, which continued about four hours.

17th.—Better. A slight return of spasms in the afternoon.

18th.—His mouth and gums are affected by the calomel. From this time he appeared to be rapidly improving till the 20th, when he had so far recovered his strength as to sit up the whole day. The only unfavorable symptom observable at this time was an unalterable conviction in his own mind that he should shortly die.

21st.—At four o'clock P.M. he had a recurrence of terrible convulsions, which lasted about half an hour; then a lucid interval of four or five hours; and finally a state of entire insensibility, which continued till ten o'clock A.M. of the 22d, when he expired.

At four o'clock of the same day the body was opened, and, by the assistance of Drs. WOOD, CHEESEMAN, and RODGERS, the contents of the cranium, thorax, abdomen, and pelvis, were examined with unusual particularity.

The only morbid appearances exhibited were the following: The blood-vessels of the brain were preternaturally turgid, especially those of the cerebellum, which was covered with a coat of coagulable lymph. About an ounce of serum was effused into the base of the skull. The mucous membrane of the stomach was whitish, or paler than natural, soft, pulpy, and very easily detached by rubbing it with the finger. Sanguineous congestion in the pelvis of the kidneys, exhibiting the usual appearances of inflammation in these parts. Ten ounces of urine were drawn from the bladder by a catheter.\*

#### TUMORS.

##### *Cases of Tumors removed from different Parts of the Body.*

By Dr. BALLINGHALL.

I. *Warty Excrescence on the Thigh.*—JAMES CRAIG has a tumor of this description seated on the outside of the left thigh, about midway between the trochanter and condyles of the femur, and in the cicatrix of an old and extensive burn. It originally appeared in the form of a small warty excrescence about thirteen years ago; was removed by excision, and again commenced growing last spring after an injury. From this time it extended progressively in all directions, until its base occupied an extent of three or four inches diameter, in an oval or nearly circular form; the centre of it presented a foul ragged ulceration, with a fungating warty excrescence around the exterior margin: it afforded a fetid sanious discharge, and was attended with lancinating pains.

This diseased mass was removed by Dr. BALLINGALL on the 15th of October, along with a considerable part of the surrounding integument, a portion of the fascia, and of the subjacent muscular substance.

The wound left by this operation has been very slow in cicatrizing.

\* American Journal of Medical Sciences.

ing, as might naturally have been expected, in consequence of the previous state of the contiguous parts from the burn; it seems for some weeks back almost stationary, with a disposition to callosity around the edges, but upon the whole exhibits a tolerably florid and healthy appearance, and the patient has left the hospital, in hopes that the change may produce a more speedy cicatrization of the sore.

The character of this affection was somewhat anomalous, and might (Dr. B. thought) be very properly included under the denomination of what has been termed warty cancer: warty in its structure, and cancerous in its disposition. He was induced to think so, from the disease having recurred in the same situation, after having been removed by Dr. PITCHCAIRN about four years previous to the patient's admission into the hospital, and from the appearance of some enlarged glands in the groin, which seemed to be of an intractable and malignant character.

II.—Mary Goodfellow, aged sixteen, was admitted on the 6th of December, with the cuticle in various parts of the body presenting the appearance of old superficial cicatrices, apparently the result of some general cutaneous eruption; at the left commissure of the lips, at the anterior margin of the left axilla, and on the left forearm, immediately below the flexure of the elbow-joint, were prominent warty excrescences; and in the angle between the right labium pudendi and top of the corresponding thigh was another excrescence of the same character, nearly as large as a duck's egg: it was of a soft warty texture, its surface apparently consisting of numerous granular bodies, of a florid red colour; and was by many very aptly compared in its appearance to the roe of a salmon. The history given of the origin and progress of the complaint, by the patient and her mother, was exceedingly unsatisfactory, and in many respects altogether contradictory: on one occasion it was stated to have been growing from her infancy, and on another to have originated only a few months ago. By some it was considered as a form of frambæsia, or yaws; by others, as a case of sibbens; and by others, as a venereal affection. Dr. Ballingall's opinion, at first, was rather in favor of the latter supposition, chiefly from an apparent desire on the part of the patient and her mother to conceal its true origin, and from its resembling in appearance those cauliflower excrescences frequently met with on the prepuce and glans of the male, as a sequela of venereal ulcers or abrasion: at all events, the disease was obviously of an extended and constitutional character; and hence, upon consultation, it was agreed to try the effects of constitutional treatment.

The girl was therefore put upon a course of mercurial pills, and a solution of corrosive sublimate directed as a local application to the excrescence in the groin, the one in the axilla having been previously removed by a scalpel.

On the 13th of December, her mouth had become sore from the mercury, and the following report was entered in the journal:—"The swelling in the groin has much increased since her admission; a few of the largest of the small granular bodies composing the bulk of the tumor slough and fall off daily."

On the 16th, the disease is reported to be "still upon the increase; the angle of the mouth, the place on the anterior edge of the axilla, from which the diseased skin was removed by the knife; and two spots on the forearm, to which caustic has been applied; present the same granulated structure, only in a diminished state of activity."

On the 22d, the pills were ordered to be omitted, in consequence of the soreness of her gums; and for some days about this period she suffered considerably from febrile irritation and restlessness, with much pain from the ulcerated and sloughing points of the excrescence.

On the 5th of January, when the febrile irritation had subsided and her system appeared free from the mercurial influence, Dr. B. removed the tumor by excision, cutting out an oval portion of the integuments on which it was seated: upon dividing it longitudinally, and examining its structure, it was found that it involved the texture of the true skin.

For a few days after the operation, the patient suffered considerably from fever, her pulse being at one time as high as 134; but, on the 8th, the wound was beginning to granulate and look well; pulse eighty-two, bowels open, skin cool, and no thirst. From this time the wound continued to heal kindly, and soon cicatrised.

III.—Elizabeth Hay was admitted (11th January) for the purpose of having a tumor removed from the scalp, which is thus described in the journal: "Over the vertex of the head, and attached by a broad base, is a large firm tumor, rather greater than a clenched fist. It is moveable on the skull, and in some parts has burst, discharging a thick yellow matter around the places where it has burst; it is of a soft consistence, towards the base it feels harder. All over the body are small soft tumors, generally attached by soft pedicles, and from the size of a pea to that of a walnut."

"States that her skin has been, from her infancy, covered with these tumors, which gave her no inconvenience till within the last three years, when the one on the vertex became painful, swelled, and attained its present size. Three weeks ago it burst, and has since continued to discharge pus. General health good, bowels regular."

This tumor was removed by Dr. HUNTER, and, on investigating its structure, you saw that, whatever might have been its original nature,—whether akin to the other tumors with which this patient's body was studded over, or not,—it had, previous to its removal, assumed a carcinomatous character: you saw, at some points, the appearance of fibrous bands passing through it in different direc-

tions, with matter of a dirty yellowish colour, and atheromatous consistence, occupying the interstices between them; at other points the texture of the tumor was completely broken down, and it discharged a most offensive ichorous matter, insomuch as to be loathsome to the poor woman, who earnestly entreated its removal.

In doing so, it was found that the tendon of the occipito-frontalis muscle was involved in the structure of the tumor, and the pericranium was left bare after the operation. The sore healed kindly, and the patient was dismissed cured on the 20th of February.

There were numerous tumors on this woman's body, forming a good example of the *Molluscum Pendulum* of BATEMAN.

IV.—Colin Wilson, aged seventeen, was admitted into the ROYAL INFIRMARY OF EDINBURGH, on the 28th of January, and the following particulars of his case entered in the journal.

"The left eye is almost protruded from, and is pushed close to the roof of the orbit; the conjunctiva palpebræ inferioris is everted, and the two eyelids cannot be brought into contact. Under the inferior palpebra, the skin is of a dusky yellow hue. Under the eye, and apparently occupying the whole of the floor of the orbit, may be felt a tumor of a soft fleshy consistence, yielding to the fingers, but not moveable. The eye is quite moveable in all directions upon the tumor; the sight is a little impaired in this eye, but he can read large print with it. Has no headache, nor pain of eye, but a sense of tension; has frequent watering of the eye, but the passage for the tears seems quite natural and unobstructed. Eight months ago received a blow on the eye, from which he suffered considerable pain: three weeks afterwards he became sensible of swelling in the orbit, which has since gradually increased, and that more rapidly of late. Leeches, blisters, and saturnine lotions have been used. A puncture was twice made with a lancet under the eyelid, from which about half an ounce of blood flowed at each time. None of these means, however, were of any advantage. Health is good. Bowels regular."

This tumor was removed by Dr. Hunter on the 31st of last month, without injury to the ball of the eye: it was soft in consistence; some portions of it quite liquid, resembling thick tar.

The swelling and symptomatic fever immediately succeeding the operation were very moderate, but at the end of about a week it was observed that the cornea was ulcerating, and this went on, notwithstanding the local application of the Nitrate of Silver and Vinum Opii, until it ended in a small protrusion of the iris, which still exists.

About the middle of the present month, this patient had a severe and obstinate attack of erysipelas, affecting the parts contiguous to the eye. This ultimately gave way to repeated bleedings ad deliquium, the internal exhibition of antimonials and saline purgatives, with the local use of anodyne fomentations.\*

\* Condensed from Dr. BALLINGHALL's Clinical Lectures, March 1828.

## CRITICAL ANALYSES.

Quæ laudanda forent, et quæ culpanda, vicissim  
illa, prius, cretâ; mox hæc, carbone, notamus.—PERSIUS.

*Surgical Observations on the Treatment of Chronic Inflammation in various Structures; particularly as exemplified in the Diseases of the Joints.* By JOHN SCOTT, Surgeon to the London Ophthalmic Infirmary; and Assistant Surgeon to the London Hospital.—8vo. pp. 291. Longman and Co. London, 1828.

For a very considerable period, Mr. SCOTT, of Bromley, has enjoyed extensive reputation for his successful treatment of various diseases, but particularly of different affections of the joints. His plan of treatment, however, has not been distinctly known to the great body of the profession. From persons who have been under his care, we have often heard the most contradictory accounts both of his principles and practice; while, with very few exceptions, they have all agreed that they have derived much benefit at his hands, even when the first chirurgical talent of the metropolis had been in vain exerted to relieve them.

We are too much accustomed to the exaggerated reports of patients, to rely implicitly upon them. It would be idle, indeed, to expect correct information upon such subjects from public rumor. As the work before us comes from the pen of Mr. Scott's son, we shall no longer be in doubt concerning a mode of treatment, about which so much has been said, but of which so little has been positively known.

The author compliments Mr. BRODIE for his accurate investigation of the pathology of diseases of the joints, but he conceives that the treatment still admits of great improvement. He observes, that the most profound pathologists are not always the most successful practitioners; and in the truth of this sentiment we cannot but agree, without, however, the most distant intention of any individual application of it. The fact has been impressed upon us by frequent observation.

The object of the present work must be anticipated by our readers. It is to communicate the mode of treatment Mr. Scott, of Bromley, has for many years employed in diseases of the joints, with complete success in a vast number of cases "in which the methods ordinarily employed had proved ineffectual." The author has seen its efficacy in many cases of his father's practice, and subsequently in his own, and "he feels it to be too important to be confined to an individual." After such an exordium, we naturally give our

attention to the work with additional curiosity, and with increased expectation of the value of the information we shall be enabled to convey to our readers.

It has been deemed necessary to prefix a brief inquiry into the nature and treatment of chronic inflammation, and ulceration in general, in order that the operation of the remedies proposed may be satisfactorily explained. We are informed that "the influence of disorder of the health and the digestive organs in keeping up local diseases, has of late years been fully explained; but little notice has been taken of the reverse truth, the influence of local disease in keeping up disorder in the constitution and the digestive organs." It may be true that no work has been particularly dedicated to the consideration of the latter fact, but we cannot admit the inference that it does not exert its due influence with every attentive, well informed, and unprejudiced practitioner. It is an admitted axiom, although volumes may not have been expended in support of it, that the stomach has as much to apprehend from local disease, as local disease from the stomach.

"Pain or irritation in any part will assuredly spread disturbance throughout the system, and thereby impair the functions of the stomach, and its connected organs; and if we can relieve this pain, or soothe this irritation, by local remedies, we shall go as far towards imparting tranquillity to the system and the stomach as by the employment of alteratives, aperients, and a regulated diet, which it is often vain to adopt without attention to the former. There never was a greater delusion than that of supposing, with some modern surgeons, that medicine and diet are all that is necessary for the treatment of local diseases, and that local remedies are needless. It is a scrupulous attention to, and a dexterous application of, the latter in addition to the former, which has enabled my father to succeed in curing so many local diseases, which had baffled all previous efforts." (*Preface*, p. viii.)

A neglect of local remedies, especially during the existence of much local irritation, is a practical error, which they only can commit who believe, or at least assert they believe, that the sole business of the medical or surgical practitioner is to regulate the condition of the stomach and bowels. Such partial views have, however, but few advocates, and we are much mistaken if their opportunities of practically enforcing them have not been lately on the decline.

We must be brief in our notice of the introductory observations upon chronic inflammation, and its treatment.

Chronic ulceration of the lower extremities frequently bids

defiance to the ordinary treatment, and no doubt cases of this sort are more usually treated empirically, than upon well understood pathological principles. Mr. Scott considers the ulcer to be "only the termination and effect of the chronic inflammation by which it is surrounded, and the former cannot be healed until the latter is removed. In the treatment, the direct object is not to heal the ulcer, but to cure the chronic inflammation; for, if this can be effected, the ulcer heals spontaneously. The essential remedy for this state of things is mechanical support, which restores to the vessels the power of propelling their fluid along their canals." (P. 5.) It is well known that for the general adoption of this mode of treatment we are indebted to the late Mr. BAYNTON, of Bristol. Mr. Scott is sensible of the practical advantage of the remedy recommended by Mr. Baynton, but he differs from him as to the mode of its operation. He concludes that the effusion of lymph and of serum into the cellular membrane, and the distention of the integuments, are the effect, not the cause, of inflammation, as Mr. B. supposed. Mechanical support is equally well adapted to ulcers on the lower extremities, whether they arise from a varicose state of the veins or not. In many cases of chronic inflammation not so violent as to produce ulceration, it will also afford great relief.

"In the former cases, it is not the ulceration that is the object of our solicitude, but the inflammatory action which induces ulceration. The ulceration ceases as soon as the inflammation is arrested; and, as this has been shown to depend on distention of the vessels, which are no longer able to resist the gravitation of the blood, we have only to afford such a uniform support to the limb as shall prevent the veins from yielding to the pressure of their contents. If we adopt the adhesive bandage with this view, it must be applied in a manner very different from that in which it is recommended by Mr. Baynton. He directs the 'middle of the piece of plaster to be applied to the sound part of the limb, opposite to the inferior part of the ulcer, so that the lower edge of the plaster may be placed about an inch below the lower edge of the sore, and the ends drawn over the ulcer with as much gradual extension as the patient can well bear. Other slips are to be secured in the same way, each above and in contact with the other, until the whole surface of the sore and the limb are completely covered, at least one inch below, and two or three above, the diseased part.'—'The force with which the ends are drawn over the limb must be gradually increased, and, when the parts are restored to their natural ease and sensibility, which will soon happen, as much may be applied as the calico will bear, or the surgeon can exert.'" (P. 9.)

Mr. Scott deprecates this mode of applying the plaster bandage. He has seen instances in which great mischief has arisen from it.

"The pressure round the part of the leg encircled by the plaster and bandage is so much greater than at the lower part, where a roller only is applied, that the venous circulation is so much impeded as to cause considerable tumefaction of the foot and ankle. This produces extensive inflammation, which is propagated to the original seat of disease. Besides, in many instances, the inflammation of an ulcerated leg extends much more than an inch below the ulcer; so that, according to Mr. Baynton's directions, we are to apply to a portion only of the disease a remedy which, when so applied, aggravates the remainder; for I repeat that inflammation is the disease, and ulceration only its consequence." (P. 11.)

Instead of commencing the application of plasters an inch below the ulcer, it is necessary, according to Mr. Scott's view, to afford equal support to the whole limb, in order effectually to bring about a uniform state of the circulation.

"With regard to the method of fulfilling the foregoing indication, the *Emplastrum Plumbi*, P. L., spread on calico, is the best application, as it does not irritate the skin. It is most conveniently made use of when cut into slips of fifteen inches in length, by two in breadth. The foot being placed at a right angle to the leg, one of the slips should be applied from the first bone of the great toe, along the inner edge of the foot, around the posterior part of the *os calcis*, to the first bone of the little toe; the middle of another slip should then be placed under the bottom of the *os calcis*, and its ends extended perpendicularly up on each side of the leg; the third is to be applied along the foot, parallel to the first, and overlapping the half of it; the fourth should be placed parallel to the second, overlapping the half of it, and extending perpendicularly up the sides of the leg. In this manner they should be applied alternately along the foot and up the leg, the one holding and as it were antagonising the other in the motions of the foot, until the whole limb is covered from the toes to the knee. Subsequently to this, a calico bandage is applied in the usual manner, first alternately around the foot and ankle, and then up the leg as high as the knee. It is necessary to be particularly careful that the plasters and bandage be applied in such a manner that their superior and inferior edges are accurately placed in apposition to the skin, otherwise they will exert an unequal pressure, which is highly injurious. The whole should be applied with only that degree of tightness which is perfectly agreeable to the feelings of the patient, and not with a view of compressing the parts into a smaller space. In this manner every vessel in the limb will be uniformly and effectually supported." (P. 13.)

The renewal of the applications will depend upon the quantity of the discharge; for, when thus applied, they will



remain for months without altering their position. By adopting this mode of treatment, an ulcer on the lower extremity is said to be placed under the same circumstances in respect to the circulation, as one that has its seat on the trunk, or on the upper extremity; and will heal with equal facility. Several cases are detailed to illustrate the efficacy of this practice.

Mr. Scott has found, from ample experience, that mechanical support may be employed with equal advantage in chronic inflammations of the upper extremity.

The author has seen many cases of chronic inflammation of different parts, in which the internal exhibition of mercury has been productive of great temporary benefit; but the already debilitated powers of the constitution are by this treatment so much impaired as to produce a subsequent aggravation of the disease. The local application of mercury, however, Mr. Scott assures us, has the same power of subduing chronic inflammation as when internally administered, and without producing its constitutional effect. This is a question of fact, which can be determined only by experience, and cases are related to show the grounds upon which the opinion rests. In many cases, mechanical support alone will be found capable of arresting chronic inflammation. In others, it may favor and expedite the subsidence of disease which it has not the power to remove. In these latter instances, mercury locally applied is capable of controlling the diseased action as effectually as it arrests acute inflammation when internally administered. Mechanical support, too, by relieving vascular distention, favors the operation of the above remedy as effectually as unloading the vessels by bleeding. When the situation of the part, then, renders it practicable, the two agents are combined.

Constitutional disorder is at the same time to be attended to. This practice equally applies whether inflammation has proceeded to ulceration or not. The majority of scrofulous ulcers, also, the author assures us, will be successfully treated by the same means. Common ulcers, whether varicose or not, when of very long standing, require more forcible compression. The first application of the plaster may be found to give some pain, but after a short time it will subside. If, however, the whole limb were encircled with this degree of tightness, the venous circulation would be impeded, and the inflammation aggravated. To stimulate the vessels of the affected part by a suitable degree of pressure, the plasters must only extend to half the circumference of the leg, and a short distance both above and below the seat of the inflam-

mation. The application of lunar caustic will sometimes be found an useful adjuvant to the plasters.

*Diseases of the Joints.*—It is well known that, however similar these diseases become in their latter stages, they originate in different structures. From the appearance presented at an advanced stage, it is often impossible to distinguish which structure was primarily affected. This want of distinction Mr. Scott considers of less practical moment than might have been supposed, as the disease, although modified by the structure in which it is seated, essentially consists in chronic inflammation and its consequences. If disease does begin in one particular part of an articulation, the different textures soon participate in the disease, on account of their intimate connexion. The knee and hip joints are more frequently the seats of disease than the other articulations. Mr. Scott has therefore selected them for the subject of his remarks. The same principles and treatment will apply to the diseases of the smaller joints.

Passing over the description of the rise and progress of diseases of the joints, which is in substance similar to that of other writers, we arrive at their treatment. The constitutional means recommended by Mr. Scott are such as have already been pointed out by Mr. Brodie and other authorities. Upon the subject of general bleeding, Mr. S. perhaps goes a step further than his predecessors; for he says that, "even in the most acute stages, and most inflammatory forms of the diseases of the joints, there is usually little occasion for general depletion."

The author now proceeds to the especial object of his work, to explain the local treatment which, in the practice of his father and himself, has been very successful in these formidable ailments. If our limits permitted, we would willingly abstract the whole section devoted to this part of the subject, as it is for his local management in particular that Mr. Scott has gained so much celebrity.

If exercise is painful, either at the moment or shortly after, the patient must be confined altogether to the horizontal position. A fresh accession of inflammation is often produced by an accidental slip. Local bleedings must be had recourse to, to an extent proportioned to the severity of the inflammation. The object, however, is merely to produce a local effect, and not to influence the constitution. Cupping will be found very eligible in hip cases, but Mr. S. has sometimes thought that the pressure of the glasses has aggravated the disease when applied to the knee. In patients much emaciated, local bleeding has rather increased than reduced

the disease; yet subsequently, in these very patients, when their general power was improved by proper means, local bleeding has been distinctly serviceable. Warm poultices are to be applied after a sufficient quantity of blood has been removed. Mr. Scott objects to cold applications. By these means the disease will be reduced to a chronic state, and further bleeding will not be required unless any increase of inflammation should occur.

The active stage of the disease having been thus subdued, counter-irritation must be employed; but we are not to produce by it any disturbance of the constitution. The purpose of counter-irritation will be frustrated if the system generally is excited; for the rapidity of the circulation throughout the whole body, and consequently through the diseased limb, will be increased.\* The degree of counter-irritation must, of course, vary according to the susceptibility of the patient.

Blisters are not thought to be well adapted to these diseases. Our own experience corroborates the following remark: "If they (blisters) are applied sufficiently near the seat of the disease to exert any influence over it, the inflammation they excite is frequently propagated to the morbid structure."

Caustic issues are not recommended. Of the use of moxa, Mr. Scott cannot speak from his own experience. He has seen it fail in the hands of others.

"The above-mentioned irritating, and sometimes very mischievous, remedies may be all superseded by the following treatment. In the first place, the surface of the joint, suppose the knee, is to be carefully cleansed by a sponge, soft brown soap, and warm water, and then thoroughly dried; next, this surface is to be rubbed by a sponge soaked in camphorated spirit of wine, and this is continued a minute or two, until it begins to feel warm, smarts somewhat, and looks red. It is now covered with a soft cerate made with equal parts of the *ceratum saponis* and the *unguentum hydrargyri fortius cum camphorâ*. This is thickly spread on large square pieces of lint, and applied entirely around the joint, extending for at least six inches, above and below the point at which the condyles of the femur are opposed to the head of the tibia; over this, to the same extent, the limb is to be uniformly supported by strips of calico, spread with the *emplastrum plumbi* of the London Pharmacopœia. These strips are about one inch and a half broad, and vary in length; some are fifteen inches, others a foot, others half these two lengths, and the shorter or longer are selected according to the size of the part round which they are to be applied. This is the only difficult part of the process. This adhesive bandage ought to be so applied as to preclude the motion of the joint, prevent the feeble coats of the blood-vessels from

being distended by the gravitation of their contents in the erect posture, and thereby promote their contraction. Over this adhesive bandage, thus applied, comes an additional covering of emplastrum saponis, spread on thick leather, and cut into four broad pieces, one for the front, the other for the back, the two others for the sides of the joint. Lastly, the whole is secured by means of a calico bandage, which is put on very gently, and rather for the purpose of securing the plaster, and giving greater thickness and security to the whole, than for the purpose of compressing the joint. This is an important point; as otherwise an application, which almost invariably affords security and ease, may occasion pain, with all its attendant mischief." (P. 133.)

In some cases, where the skin is thick and indolent, irritation may be promoted by rubbing on a small quantity of tartar emetic ointment, before the application of the cerate. If it is desirable to prevent all motion of the limb, pasteboard splints may be applied externally to the plasters. A piece of pasteboard should be softened by soaking in water, and cut into the length, breadth, and form of splints. This kind of splint is infinitely preferable to those made of wood. They support the limb very effectually, and are more agreeable to the patient.

"The remedies thus applied will not require very frequent removal. The time during which they may be left undisturbed will depend chiefly on the necessity for a repetition of the bleeding, in which we must be guided by the degree of pain, or, when there are open abscesses, by the quantity of the discharge. Should neither of these influence the question, the only necessity for removing the dressings will arise from their having ceased to keep up any irritation in the skin. In some cases it will be necessary to reapply them every week: in the generality of instances they may be allowed to remain a fortnight, and in others for a longer time. Even where there are open wounds, I allow them to remain several days, or a week, being firmly convinced by experience that the presence of the matter does less harm than the frequent disturbance of the part. A strumous ulcer can scarcely be disturbed too seldom: nothing does so much harm as officious dressing and probing." (P. 133.)

The plaster bandage ought to be applied in such a way as to afford ease and comfort to the patient. If it occasions pain, either on its first application or subsequently, it is either applied badly or the part is not in a fit state for it.

"When the disease commences in the bones, as long as it is confined altogether to them, I do not think that the loss of blood is attended with so much benefit as it is capable of affording after the soft parts have become affected. In this form of disease, the local use of mercury is most especially beneficial; it should, there-

fore, be applied without delay, and its operation favored by exciting a considerable cutaneous irritation. It is necessary also, in this case, to prevent all movement of the joint, in order that the bone, in its softened state, may not be injured by the contusion it would experience in the exercise of the limb." (P. 146.)

When the synovial membrane is the seat of the more acute form of disease, the loss of blood will be more frequently necessary; the mechanical support and counter-irritation must be moderate.

It is an important question to determine whether, when matter is formed in the cavity of a joint, it is desirable to evacuate it or not? Mr. Scott's experience leads him to determine "that to make an opening into the cavity of a joint is, in almost all cases, an injurious mode of practice." He would trust to the application of the foregoing remedies, which he believes are as well adapted to the suppurative as to any stage of the disease.

The practice of squeezing the matter out of an abscess, when opened in any way, is considered improper. If the matter be allowed to escape without any interference, and the parietes of the abscess be moderately supported by a bandage, they will gradually contract and diminish the cavity, at the same time that its contents are as gradually expelled.

A detail of many very interesting cases of disease of the articulations, successfully treated upon the plan advised by the author, concludes the work.

The mode in which Mr. Scott produces counter-irritation upon the diseased joint appears to be the principal peculiarity which marks his practice. We have frequently had occasion to lament the general disturbance produced by the common methods of counter-irritation, whether effected by the repeated application of blisters, the use of caustic issues, or the application of moxa; and, if the plan suggested should be found to act efficiently upon the part without disturbing the general system, we certainly are indebted to Mr. Scott for a very important improvement in the treatment of the diseases to which he refers. It must be remembered, that the advantages of supporting the joint in the manner pointed out by Mr. Scott depend very much upon the *dexterous* application of the various plasters and bandages which he recommends.

*The Morbid Anatomy of the Brain.* By ALEXANDER MONRO, M.D. Honorary Member of the Royal Physical, and Member of the Medico-Chirurgical Societies of Edinburgh; Professor of Anatomy and Surgery in the University of Edinburgh, and President of the Royal College of Physicians; F.R.S. & F.A.S.E. &c. &c. &c. Vol. I. *Hydrocephalus*. Illustrated by Copper-plates.—8vo. pp. 200. Maclachlan and Stewart, Edinburgh, 1827.

THE author of this volume has for twenty-five years directed his particular attention to the organic disorders of the brain. He has already published, in DUNCAN'S *Annals of Medicine* for 1803, the results of his researches into the structure of the skull and brain, in that species of hydrocephalus in which the head is much enlarged. His further views upon the subject have been postponed until the present moment, from an anxiety not to state any opinions without mature reflection and ample observation.

Dr. MONRO has divided his subject into two parts, each of which is to be illustrated by engravings. The object of the first is to give a graphic and concise sketch of the disease called Hydrocephalus, or Hydrancephalus, a disease which is at once very prevalent and fatal.\* The second volume will be dedicated to the history of Apoplexy, Epilepsy, and Mania, and to the effect of Injuries of the Head.

The first chapter includes some general remarks on the effusion of a fluid within the head,—on the physical and chemical nature of that fluid,—on its different seats,—and on the concomitant organic derangement. According to some authors, there is an accumulation of a small quantity of fluid within the membranes of the brain, during life and health, the pressure of which is supposed to be essential to the healthy functions of the brain. This opinion is said to be untenable, as it rests neither upon incontrovertible evidence nor upon analogy. The Messrs. WENZEL have reported that they found a small quantity of water within the inferior cornua of the lateral ventricles of the brain, in two of three criminals who had been guillotined. Dr. Monro observes, that “a small quantity of fluid is generally found within the ventricles of the human brain after the lapse of twelve or sixteen hours after death; but this is no proof of the existence of water in that situation during life, the fluid

\* “According to Dr. COINDET, 20,000 die annually in France from this disorder. According to Dr. ALISON, 40 out of 120 patients died of hydrocephalus at the New-Town Dispensary of this city. And, from the *Annals of the Universal Dispensary of London*, published by Dr. DAVIS, 8 out of 45 died from hydrocephalus.”

being generated by the condensation of the halitus, which may be observed to escape when the brain has been exposed, while it is still warm." (P. 5.)

Upon this point we may observe, that MAGENDIE has ascertained that, in living animals, a quantity of serous exudation always exists between the pia mater and tunica arachnoides, which passes readily from the surface of the brain to that of the chord.\* Three different kinds of encysted tumors, containing water, have been found within the human brain.

"To the first the name *hydatid* has been given, from the watery nature of the contents of the cyst. The size of these hydatids varies from that of a millet-seed to that of an orange. They are not peculiar to the human body, but are more frequently found within the brain of the inferior animals. In my book on the Morbid Anatomy of the Gullet, &c. I have described several kinds of these. I met with an example in which a hydatid was lodged within the substance of the human brain. The patient, a stout man, twenty years of age, complained of constant headache, chiefly on the right side, followed by a dilatation of the pupil, and epileptic fits, which proved fatal. On dissection, the cranium was found to be much thinner on the right than on the left side, particularly the right parietal bone, which in many places *was not thicker than a wafer*. On opening the right ventricle of the brain, a cyst, about the size of a goose's egg, was found within it, filled with a watery liquor, and surrounded by a gelatinous matter, which did not adhere to the membrane lining the ventricle." (P. 9.)

One of the most extraordinary circumstances connected with the history of hydatids, which Dr. Munro believes he discovered, is, that those parts which are in the vicinity of the animal are wasted: thus the skull is rendered soft, and thus hydatids pass out from the organs within which they have been originally imbedded, as from the liver or ovarium, into the cavity of the abdomen; and, from a similar cause, they are thus occasionally discharged from the body by the anus or skin.†

Preternatural encysted dropsical tumors are not unfrequent in the choroid plexuses. A cyst containing a yellow-coloured serum is often found within the substance of the brain of those who have fallen victims to apoplexy, and it has been said that their number corresponds with the number of apoplectic attacks. "Cysts of this description originally contain blood, the red globules of which are removed by absorption."

\* Journ. de Phys. Exper. vol. v. p. 36.

† See MUNRO'S Morbid Anatomy of the Gullet, Stomach, and Intestines.

In hydrocephalus, the watery fluid—

“generally occupies the four large ventricles of the brain, as these freely communicate with each other, and the quantity of the fluid depends generally upon the duration of the disease, and varies from an ounce or two to several pounds. When a small quantity of fluid is lodged within the ventricles, these undergo no perceptible change as to size or form; but, when several ounces of fluid fill them, they become considerably and externally enlarged, and partially distorted in form; and the still further accumulation of a fluid gives occasion to the disjunction of the bones of the skull.

“As the third ventricle is enclosed within the thalami nervorum opticorum, it is not so much enlarged as the lateral ventricles. The enlargement of the communication between the lateral ventricles keeps pace with that of the other constituent parts, and it has sometimes attained so large a size as to give passage to the little finger.” (P. 13.)

The enormous size the head sometimes attains when there is a considerable quantity of fluid accumulated, is well known. Dr. M. met with one instance of a child that died when sixteen weeks old, whose head measured, at its greatest circumference, twenty-four inches. In chronic hydrocephalus, the brain resembles a bag filled with water.

“When the accumulation of fluid within the head amounts to several pounds, the brain resembles a bladder filled with water, the greater number of the convolutions being effaced. Upon examining the parietes of this bag with attention, they are found to be various in point of thickness, in different instances, and also in the same case in different places; and in some there is no vestige of the brain to be discovered on that side on which the patient used to lie in bed; and the internal surface of the enlarged ventricles is white.” (P. 30.)

Dr. Munro has seen the pineal gland converted into a bag which was filled with water. In hydrocephalus, the lymphatic glands at the back of the head and upper part of the neck are very frequently enlarged, and somewhat indurated.

It appears, from the dissections of animals made by the author, that the brain of the most healthy is sometimes softer than usual. The result of his investigations as to the consistence of the brain of those who have died from hydrocephalus is, that *generally* it is neither harder nor softer than the healthy state. Dr. Monro observes, that the softening of the brain has been imputed to chronic inflammation, but it is perhaps rather the consequence of debility.

“The effect of low diet and debilitating diseases in inducing a softening of the brain, is familiar to those who have devoted much attention to anatomy; and the remarkable softness of the brain of criminals, which I have frequently noticed, may perhaps be imputed



to these unfortunate persons being kept on very low diet for some time prior to their execution." (P. 37.)

The enlargement of the ventricles of the brain is a striking feature in many instances of hydrocephalus, and it has been explained in two different ways. Some authors have affirmed that it is owing to an extension of the ventricles, and others to the abstraction of a part of the substance of the brain.

"When the enlargement of the ventricles is not accompanied by the disjunction of the bones of the skull, unless it be supposed that the substance of the brain is compressed into less bulk, a part of it must be removed; and, if it be not removed, instead of being softer (as sometimes happens) the brain in that case should be invariably found to be reduced to a much firmer state, as may be done artificially, under the exhausted receiver of an air-pump.

"This abstraction of a part of the brain takes place, not only in hydrocephalus, but also when abscesses, cysts, or tumors of different descriptions, are formed within the substance of the brain. In order to make room for such abscesses or cysts, a part of the solid substance of the brain must be absorbed.

"As an argument in favor of the abstraction of a part of the brain, it may be added that, in the Museum, there is the head of a calf which contained fifteen pounds of water, while the brain weighed eleven drachms only.

"On the other hand, when the component bones of the skull give way, the ventricles of the brain may be much enlarged by extension; and if there be no vestige of brain on the side of the head on which the child has lain, and which I state on the high authority of Sir E. HOME, that circumstance could only have taken place by absorption." (P. 38.)

After having noticed the various seats of the effused fluid, and the consistence of the brain when water is contained within the ventricles, Dr. Munro proceeds to describe the organic derangements of the membranes of the brain, and the nature of those tumors which are occasionally found attached to the surface, or are imbedded within the substance of the brain, in cases of hydrocephalus.

*Of the different kinds of Hydrocephalus, their symptoms, prognosis, and method of treatment.*—The first section of this chapter treats of hydrocephalus, in which the skull retains its natural size and form. Of this form of the disease, there are two very different varieties.

"The one is decided in its character at the outset, very rapid in its progress, proving fatal in three, four, or five days, is very rare, and has not been described by any author with whose works I am acquainted;—the other is frequently obscure in its origin, is much slower in its progress, being generally of three, four, or five weeks' duration; is very frequent, and has already been described by many at great length." (P. 69.)

*Of the most acute species of Hydrocephalus.*—This rare form of the disease is very sudden in its attack, and there are no previous symptoms denoting a derangement in the functions of the nervous system.

“ It begins like the croup. The child awakes in the night in a state of extreme agitation, and much flushed, and with a quick pulse; he is hoarse, and the sound of the voice when he inspires is similar to that in croup: the sound seems to come from a brazen tube, which is contracted at a certain part.

“ Children who are stout and healthy are equally liable to this disorder as the feeble and emaciated. And I have seen a patient, on the very day he was attacked by this disorder, who seemed very cheerful, and took his meals well, and was to all appearance in perfect health.

“ The giving an emetic relieves the breathing, and, upon examining what has been rejected by vomiting, it is found to be evidently undigested.” (P. 70.)

In illustration of the nature of this “ very acute and fatal kind of hydrocephalus,” three cases are given; two of which occurred in infants, the other in a woman sixty-five years of age. Dr. Munro was informed by Professor BURNS, while his work was going through the press, that he had described, in his “ Principles of Midwifery,” this form of the disease. He attributes it to an affection of the origin of the eighth pair of nerves, induced by the state of the extremity of the fifth in dentition acting on its origin, which is near the eighth. Mr. Burns observes, that “ it by no means necessarily ends in hydrocephalus, but it sometimes does, as, after the child has been apparently weak for weeks or months, he is carried off by hydrocephalus; which change is first indicated by general convulsions: Few children recover when the original attack is accompanied with convulsions, yet the case is not altogether hopeless. The symptoms enumerated by Dr. Munro as constituting this “ most acute form of hydrocephalus” must be immediately recognised by every practitioner of moderate experience in infantile diseases. But we altogether dissent from the application of the term hydrocephalus: it is a positive misnomer. We grant that effusion within the head may occur at some uncertain period after this attack, but we take upon ourselves to assert that such an event very rarely follows: The effusion of water within the head, when it does occur after these symptoms, is a contingent and an unusual event, dependent generally upon some well-marked predisposition to cerebral affection, and certainly can have no claim to the rank of an essential disease. We must be allowed to speak with confidence, for we have

had much experience upon the subject. It is this misapplication of the term "hydrocephalus" that leads to "heroic" doses of calomel and large bleedings, when, in the majority of the cases to which we are referring, purgatives and a free division of the gums, if the attack appears to be connected with painful dentition, will be found sufficient to relieve the symptoms. The spasmodic respiration, and croupy noise in breathing, sometimes continue for months.

*Of Acute Hydrocephalus.*—Dr. Munro states that this form of the disease "is most frequent in persons of a scrofulous constitution, where there is little energy of the system, and little activity in the vascular system." From the result of our own experience, we should say that this disease takes place most frequently in robust and vigorous children, but that it occasionally attacks those of debilitated constitutions. Dr. Munro has seen several instances in which a considerable quantity of water had been collected within the ventricles of the brain, and in which these ventricles had been considerably enlarged; notwithstanding which, there were no peculiar symptoms which indicated its presence. The disease sometimes begins like acute rheumatism, and the symptoms of disease in the brain do not show themselves until three or four days before death.

Dr. Munro, senior, has observed another peculiarity, which has frequently attracted our own attention. "In some cases of hydrocephalus internus, in which the retina seemed to have very little sensibility, I have seen the pupil remarkably dilated when the eye was exposed to a bright light; and, when the light was removed, it was sensibly lessened."

There are instances in which the disease has terminated favorably after convulsions, blindness, and delirium had taken place, and when the patient had been supposed to be dying; and, what is very remarkable, even the sight has been regained.

*Of the Cause of the Effusion of Water.*—A morbid accumulation of blood in the vessels of the brain, sometimes proceeding to a degree of inflammation, and generally, but not always, producing an extravasation of a watery fluid, is considered by most authors to be the originating cause of this disease.

Dr. Munro has brought forward a variety of arguments for the purpose of showing that this disease is generally unconnected with inflammatory action of the brain. We apprehend the fact may be briefly stated. Like every other form of dropsical affection, that which occurs within the cranium may be dependent upon debilitating causes, but, in the ma-

jority of cases, the symptoms of this disease, and the constitution of the child, clearly indicate a high state of cerebral excitement, if not the existence of positive inflammation of the brain. Dr. Monro observes, that

"Some advocates for the opinion that hydrocephalus originates from inflammation of the brain, have imputed the disorder to a fault in the digestive organs. But a fault of the digestive organs, so far from adding to the vigor of the constitution, produces a very contrary effect, and, by diminishing the *vis vitæ*, tends to avert or to remove a disposition to inflammation." (P. 106.)

Now this argument is more plausible than solid. We grant that derangement of the digestive organs will diminish the general powers of the constitution; but nothing is more common than to detect one organ labouring under great accumulation of blood, and even inflammatory action, while the system generally is in a state of weakness. Local bleedings are frequently necessary, when general support is not contra-indicated.

We should be strongly inclined to doubt the experience of any practitioner in the diseases of children, who, from any abstract notions, should deny that derangement of the digestive organs very frequently produces a high and dangerous degree of cerebral irritation, and even inflammation.

It is objected by the author, that, "if this disease originates from inflammation, mercury is a very improper remedy. Mercury is a stimulant, not a sedative." To this doctrine we reply, that mercury is not, or ought not to be, employed until the general excitement produced by inflammatory action has been reduced by bleeding and other proper means; and that then we have nothing to fear from the judicious use of it. We should remember, also, that mercury acts more on the extremities, than on the centre of the vascular system, and that, during inflammation, the capillary extremities are in a state of debility, and require the excitement which mercury appears capable of imparting to them. For many excellent remarks upon the subject of the employment of mercury during the existence of inflammation, we refer our readers to LUCAS "on the Principles of Inflammation and Fever," a work which will amply repay the trouble of an attentive perusal.

**Prognosis.**—The prognosis of this disease is generally unfavorable, but every practitioner must "have met with instances in which all the more usual characteristic symptoms of the effusion of water were present," and still, by the use of proper remedies, the patients have recovered.

**Of the Treatment of Acute Hydrocephalus.**—To remove.

any derangement of the functions of the alimentary canal, calomel and other purgatives are recommended. Torpor of the intestines is said to be a consecutive symptom: it merits peculiar notice, as indicating derangement in the functions of the brain, "in which case a large blister should be applied over the head." We have, however, frequently seen the cerebral disturbance much increased by the application of blisters to the scalp. Calomel, combined with James's powder, is the favorite prescription of Dr. Monro, to restore the healthy functions of the bowels. Dr. Cheyne also thinks very highly of James's powder in this disease. The diet of the patient is to be strictly attended to.

"If the disease be supposed to originate in debility, in laxity of the brain and its vessels, it may possibly be averted, by avoiding cold, all vicissitudes of the weather, and every means by which the bodily strength may be impaired; and by endeavouring to improve and invigorate the constitution, by generous diet, wine, and the keeping the bowels regular; and by removing irritation, and the irregular action of the chylopoietic viscera, by warm clothing, and moderate and daily exercise in a pure atmosphere.

"By adopting such a mode of treatment, I think I have had the satisfaction of averting the disease.

"But, on the other hand, should the disease be supposed to proceed from the over-excitement of the vessels of the brain, and if inflammation be the primary cause, and the effusion merely the effect, an attempt should be made to remove that state by the general and topical detraction of blood, low diet, by refrigerant applications to the head, by purgatives, and by setons applied to the neck, by spices and blisters, and by avoiding all such causes as induce plethora." (P. 127.)

In our opinion, the latter plan of treatment will be indicated in most cases.

The next section treats of *Hydrocephalus accompanied by an Enlargement of the Skull*."—Mercurial frictions upon the head have frequently been of use in this form of the disease. Dr. TRAILL communicated an interesting case of this kind to the author. The late Mr. WILSON has also mentioned the effect of friction with mercurial ointment in diminishing the volume of the skull. He says,

"I may be permitted to observe that, when the cause is removed, the bones will cease to enlarge; and in some instances, when the increase has not been carried too far, will recover their natural structure. I think it right to add, that in one family, where two children had died of water in the ventricles of the brain, four others were in succession attacked with the strongest-marked symptoms of the disease, attended with much enlargement of the head, who, by attention to the state of the gums, and mercurial frictions to

the head and back, are now alive, well, and with as much mental intelligence as other children of the same years." (P. 144.)

Bandages to the head have occasionally been serviceable; but, by their pressure, convulsions have sometimes been caused.

"Considering that the symptoms of oppressed brain are relieved by the disunion of the bones, I should suppose that the pressure of a bandage put around the head would generally produce the same effects as Mr. Hood has described; and hence it is only of use after the water has been artificially drawn off, in preventing the delirium which will generally succeed the puncture." (P. 145.)

As other remedies are usually of no avail, it has been recommended by SEVERINUS and LE CAT to draw off the water by puncturing the brain. Dr. MONRO has no confidence in this practice. It appears, however, to have sometimes been followed by temporary relief. Sir E. HOME, Dr. TRAILL, and Mr. BROWN,\* have related cases in which water was repeatedly drawn off by puncture, and always with relief, "and temporary retention of sight and faculty of attention, but it ultimately ended fatally."

The concluding chapter of the work contains some observations upon the effect of pressure, tumors, &c. upon the brain.

In an Appendix, a communication is given from Dr. KELLIE, upon tubercles, and on the effects produced by these formations on the different textures and organs in which they are found.

Although upon some points we have dissented from the opinions of Dr. MONRO, we may, without any critical inconsistency, recommend his work, as a whole, to the attention of our readers. It contains much useful information.

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*Transactions of the Association of the Fellows and Licentiates of the King and Queen's College of Physicians in Ireland.* Vol. V. —8vo. pp. 576. J. Cumming, Dublin; Longman and Co. London, 1828.

(Continued from p. 525.)

WE resume our analysis of the Papers, properly so called, which are contained in this volume; having placed the most interesting of the detached cases in another department of our Journal.

The next paper, in the regular order of succession, is one on the *Indications afforded by the sensible Qualities of Plants with respect to their Medical Properties.*" It is from the pen

\* London Medical and Physical Journal, vol. xii. p. 102.

of Dr. OSBORNE, and, though sufficiently interesting, is not strictly of a practical nature, and indeed contains but little matter of novelty. We therefore pass on to *Cases intended to illustrate the Application and Utility of the Stethoscope*, by Dr. TOWNSEND. The author remarks, that the importance and utility of mediate auscultation are not yet recognised sufficiently to produce its general adoption, and he has therefore detailed some cases in order to prove that auscultation is capable of affording an "extraordinary" precision in distinguishing the most complicated forms of pulmonary disease.

The first case adduced is one of pleurisy and pneumothorax, with a fistulous opening between the bronchi and pleura. The following are the details:

"On the 25th of March, 1827, in compliance with Dr. Cheyne's kind invitation. I visited John Munro at the Royal Infirmary, a tall, well-proportioned dragoon, thirty years of age, of whose previous history I learned the following particulars: His complaints commenced in October last, with cough, pain in the chest, and diarrhœa, for which he was bled, blistered, &c. A recurrence of the same symptoms called for a repetition of these measures, which, as well as several others since employed, failed to produce any permanent advantage.

"At the time of my visit he was up and dressed, walked about the room, but was soon out of breath, and easily fatigued. He was considerably emaciated, had much dyspnœa, not sufficient, however, to materially affect his speaking; profuse night-sweats, diarrhœa, thirst, anorexia. Pulse 120, small and vibratory; number of respirations, thirty. Cough most troublesome on awaking in the morning. Sputa apparently mucous, are stated to have diminished considerably in quantity within the last three weeks, from which period is also dated the aggravation of his dyspnœa. On viewing the thorax, the right side appeared considerably more dilated than the left, especially anteriorly and laterally, at its lower half. Percussion employed over the dilated surface elicited a clear hollow sound. In this space, too, the respiratory murmur was perfectly inaudible; but, immediately after coughing, a peculiar sound, resembling the vibrations of a porcelain jar when gently struck, (*tintement métallique*,) was distinctly heard in a space corresponding to the posterior convexities of the sixth, seventh, and eighth ribs. This sound was not produced either by inspiration or speaking.

"Succussion did not produce the sound of fluctuation, although the patient said he felt water dashing against his side. In the superior part of the same side of the chest (the right) the dilatation was scarcely, if at all, perceptible. The sound, on percussion, not particularly sonorous, and the respiratory murmur audible posteriorly.

"At the left side, the sound on percussion was natural, though

considerably duller than at the right. Respiration was distinctly audible all over the lung's surface, except in the space corresponding to the superior lobe, where cavernous respiration and cough, with perfect pectoriloquy, were heard distinctly.

"*Diagnosis.*—A tubercular cavity occupies the upper lobe of the left lung.

"The dilatation of the right side of the chest is produced by pneumothorax, and the co-existence of the *tintement métallique* proves that the air in the pleura proceeds from a communication between the bronchia and pleura. The medium of communication in this case I conceive to be a tubercular cavity; first, because such is by far the most frequent mode of communication between those parts; and, secondly, because the existence of a tubercular cavity in the opposite lung converts the probability of this species of abscess into a moral certainty, of which no doubt could have existed, if the patient had been examined with the stethoscope, and pectoriloquy found under the right clavicle, before the accession of the pneumothorax.

"I attribute the comparatively dull sound, on percussion, of the superior part of the thorax, and its less degree of dilatation, to the existence of ancient adhesions, which prevent the air accumulating in that region, between the pleura costalis and pulmonalis.

"To recapitulate: The lesions I expect to find are, a tubercular cavity in the upper lobe of the left lung; the right side of the thorax distended with air and fluid, (the latter at present exists in small quantity, but its proportion will no doubt go on increasing;) in the right lung a tubercular cavity, communicating with the sac of the pleura on the one hand, and with the bronchia on the other, allowing the air inspired to pass freely into the pleura; and, finally, the superior lobe united by old adhesions to its corresponding costal pleura.

"This detailed diagnosis was written and handed over to Dr. Cheyne on the evening of my first visit. \* \* \*

"*Dissection, forty hours after death.* Present, Drs. Cheyne and Stack.—External appearances: Body well proportioned; considerable emaciation; legs and feet slightly œdematous; the right side appeared considerably more dilated than the left, but, on measuring with a tape, the greatest difference was found not to exceed one inch and a half.

"On employing succussion, fluctuation was heard by applying the ear to the chest, but was not audible to the bystanders.

"The head was not examined.

"Thorax, (the right side:) A trocar was introduced between the fifth and sixth ribs, near their junction with their cartilages: an immediate rush of air followed, part of which I succeeded in collecting in a large phial filled with water, and inverted over the canula.

"On removing the sternum, a vast unoccupied space was observed in the anterior part of the thorax, capable of containing fully two quarts of water. This space had been occupied by air,



which may consequently be estimated at that quantity. The lung just appeared above the surface of the fluid, which occupied the posterior region of the thorax: it was closely compressed against the spine, and seemed reduced to one-third of its natural dimensions. The fluid effused might be in quantity about two quarts, was of a yellowish green colour, tolerably clear at its surface, but rendered turbid at bottom by numerous fragments of opaque, puriform flocculi of albumen.

“ Before touching the lung, in order to guard against an accidental formation of the opening, which I expected to find, an incision was made into the trachea, and the pipe of a pair of bellows introduced. The air passed freely through the lung, and appeared in bubbles at the surface of the fluid, in which it was immersed.

“ The fluid being removed, the upper lobe of the lung was found in close contact with, and firmly attached to, the costal pleura.

“ The whole surface of the lung, except where it was attached, was coated with an albuminous exudation of a dirty white colour, of several lines thickness, its surface wrinkled, not unlike the rind of a shrivelled apple. The costal, mediastinal, and diaphragmatic pleuræ, were still more thickly coated with this exudation, which, though firmly attached to the subjacent pleura, and apparently incorporated with it, might, by careful dissection, be separated from it, leaving the membrane underneath in a state of perfect integrity.

“ The lung was now detached: on its anterior surface, about two inches from the summit of the upper lobe, was discovered a fistulous orifice, capable of receiving my little finger, its margin well defined, rounded, and nearly cartilaginous. A probe introduced passed readily through a series of small tubercular cavities into one of the principal bronchia. At intervals of half an inch below this fistulous orifice existed three small oval superficial ulcers, which, on close examination, did not appear to communicate with the bronchia. They were evidently formed by softened tubercles, developed immediately under the pleura; for, on different parts of the lung's surface, there were several similar oval nests of tubercles, some not yet softened, others quite soft, and elevating the pleura, through which they had not as yet formed a passage.

“ Posteriorly near the root of the lung, and about the base of the superior lobe, immediately underneath its adhesion to the pleura, was another fistulous opening, of half an inch in diameter, which communicated by a long sinuous passage with a large tubercular abscess occupying nearly the whole upper lobe. This passage was lined all through by a highly vascular membrane, exactly similar to that which lined the tubercular abscess, having its surface coated with a layer of lymph. Into this vast abscess was also traced one of the principal bronchial divisions: its entry into the cavity was within a few lines of that of the sinuous passage above described.

"The middle and lower lobes contained several tubercles. The bronchial glands also were much enlarged, and studded with tubercles.

"The left side of chest.—This lung was studded throughout with granular tubercles of the size of duck-shot. In the superior lobe was found one cavity, capable of containing a large filbert, and communicating with two or three smaller ones. In the middle lobe, the tubercles were all opaque and whitish. In the inferior, many of them were in the first, or greyish, semi-transparent stage." (P. 138.)

In this case, the patient was able to sit up and dress himself till within a very short period of his death; whereas, LAENNEC states that, in all the cases he had seen, they were much oppressed and confined to bed. Nothing could be more accurate than the diagnosis in the preceding case: not so, however, that which follows.

"On the 7th of April, whilst walking through Dr. Ferguson's wards in the Whitworth Hospital, to which he has kindly allowed me admission, my attention was directed by the nurse to a patient, who, she stated, was labouring under the same disease as his predecessor in the same bed, who had died a few days before of diseased heart.

"The following is an outline of the case: Owen M'Kenna, æt. thirty-four, a flaxdresser. Thorax excessively deformed, the left side being quite flattened anteriorly. Two months ago was seized, after exposure to cold and wet, with shiverings, cough, dyspnoea, and violent palpitations on going up an ascent, or making any exertion. These symptoms increased progressively. At present his dyspnoea is extreme; violent palpitations; pulse rapid, full, and bounding; tremulous motion of jugulars, but no distinct regurgitation; inability to lie in the horizontal position; face of a dirty aguish complexion; lips and nails of a dark leaden hue; feet and ankles œdematous; cough soft, in long paroxysms; sputa occasionally tinged with blood. Appearance altogether highly indicative of morbus cordis. Says himself that the beating of his heart causes the bed to shake under him. As he appeared to suffer very much, I only applied the stethoscope to where I expected to find the seat of the disease.

"The heart was felt to pulsate vehemently in a space of three inches circumference, over the cartilages of the fifth, sixth, and seventh ribs. Pulsations stronger over the left than over the right ventricle. The rhythm of the contractions appeared regular, but their sound somewhat duller than natural. Number of pulsations 120, of respirations 44. Heart's action so tumultuous as to cause the whole anterior surface of the chest to vibrate under the hand when applied.

"These physical signs so far confirmed the impression which the symptoms had previously made on my mind, that (not having

the case to treat) I pursued my examination no further, but entered as my diagnosis, *Morbus cordis; hypertrophy of both ventricles, especially the left.*

"In a few days after I again saw the patient: dyspnœa rather increased; lips more livid. I wished to examine the state of the lungs, but he was unable to sit up, as giddiness immediately came on. Anteriorly a ronchus crepitans was heard all over the præcordial region, and all down the right side of the chest. I, in consequence, added to my former diagnosis, *double pneumonia.*

"The heart's action continued tumultuous, and in a few days death put an end to his sufferings.

"*Dissection, twenty hours after death.*—To my great surprise, the heart was found perfectly well proportioned,—at least no alteration of its structure was observed at all sufficient to account for the great derangement of its functions. For, although the opening of the foramen ovale was not perfectly closed, yet so effectually did the valve overlap and protect it, that no blood could pass from the one auricle to the other, unless the contracting force of the one far exceeds that of the other; but in this case both auricles maintained their due relative proportions, both as regarded their capacity and the strength of their parietes.

"The lungs did not collapse in the least, and adhered firmly to the costal pleura throughout its entire surface.

"The right lung felt perfectly hard, and, when cut, exhibited a surface studded with miliary tubercles, in their different stages of development, almost as close as they could be packed. Those points not occupied by tubercles were just passing into the stage of hepatization.

"The left lung contained in its upper lobe a cavity capable of containing an orange, and communicating freely with the bronchia. The root of the lung had quite an indurated feel, so crowded was it with tubercles. The pneumonia at this side had not passed its first stage (*engouement*). (P. 152.)

Dr. Townsend is of opinion that in this case the pulsations felt over the chest were produced by the consolidated lung transmitting the impulse of the heart. So far, however, from looking upon it as militating against the stethoscope, he adduces it as an argument in its favor: had he examined the superior lobe of the left lung under the clavicle, or in the supra-spinal fossa, he feels convinced that he would have detected the true nature of the case. One thing its relation undoubtedly proves—very great candour. That a case in which the diagnosis was so egregiously wrong, can be converted into a circumstance favorable to the stethoscope, is straining rather too far the courtesy of his readers.

The next case is intended to show the character and stethoscopic phenomena of hysteric cough, and the intimate connexion between precision in diagnosis and success in treatment.

" Mary Bohey, æt. forty-five. On the 25th of January she again applied at the Talbot Dispensary, stating that her strength returned but slowly, that her appetite was bad, and that her spirits were so low that she used frequently to burst into involuntary fits of crying. To these ailments was superadded, about a fortnight since, a cough, at first slight, but daily becoming more urgent, until at present it comes on in paroxysms of fifteen minutes long, during which the face becomes purple, the eyes suffused, as if starting from their sockets, the head feels ready to burst asunder, and the chest is violently constricted. In short, she seems in imminent danger of suffocation. These violent paroxysms are never succeeded by expectoration, and yield only when the patient is perfectly exhausted. The longest and most urgent fits come on when she first goes to bed, and when she gets up in the morning. Pulse 120, small and vibratory; bowels constipated; has occasional attacks of colicky pains, during which the abdominal muscles are spasmodically constricted.

" On account of her great fatness, no information could be derived from percussion.

" On applying the stethoscope, the respiratory murmur was heard quite pure all over the anterior surface of the thorax. Posteriorly at the right side, respiration pure. At the left side, respiratory murmur also pure, but much more feeble than at the right.

" This examination was made during an interval between the paroxysms. The agitation, however, excited in the patient's mind brought on a few convulsive sobs, which were quickly followed by a most frightful paroxysm of coughing, during which she literally gasped for breath.

" I again applied my ear, and was surprised to find the respiratory murmur perfectly inaudible all down the left side posteriorly, where but a few minutes before I had heard it distinctly, though more feebly than at the opposite side, where also the respiration was scarcely to be heard, except during the forced inspirations which immediately preceded the act of coughing.

" The symptoms of hysteria in this case were too evident to be mistaken, and the probability of the cough being only a sympathetic affection was, by the result of auscultation, converted into certainty. My treatment was directed accordingly, and I ordered  $\mathfrak{zj}$ . of the powdered Valerian to be taken three times a day; a practice which I had seen employed with eminent success at Naples. Three doses were taken on the first day: cough less troublesome on lying down; enjoyed some sound sleep during the night. After the fourth dose, the cough no more came on in paroxysms; other symptoms, too, experienced a proportionate improvement; and on the third day she was perfectly tranquil, and free from cough." (P. 158.)

The principal stethoscopic interest of this case, we are told, consists in the sudden cessation of the respiratory murmur, when it had been but a short time before distinctly audible;

and when it again returned, after the paroxysm was over. This Dr. Townsend supposes may have depended upon spasm of the transverse fibres of the bronchial tubes: he adds, that these always acquire increased violence in every case in which protracted dyspnoea takes place. For further information respecting spasmodic affections, we are referred to LAENNEC's "immortal treatise."

The particulars of the next case we shall not detail, but content ourselves with stating generally that it was one of fever, in which, during the convalescence, the patient became affected with pneumonia, unattended by the usual characteristics; for the detection of which the Doctor was indebted to the stethoscope, and which he was thus enabled to treat in an efficient manner.

In an appendix to his paper, Dr. Townsend relates another case of pneumo-thorax combined with pleurisy.

"Wm. M'Nally, æt. twenty, was admitted into Dr. Orpen's ward in the Whitworth Hospital on the 24th of October, 1827. His general appearance is that of a robust man, labouring under acute inflammatory disease; his face flushed, skin hot, and pulse rapid (160); his breathing laborious and hurried (44). At each inspiration, the *alæ nasi* dilate widely; the left side of his chest heaves greatly, whilst the right continues nearly immoveable; the margin of the liver is felt below the ribs, but the hand laid on the abdominal muscles can detect no motion either in them or in the diaphragm of the right side; his chest is very much distended at the right, especially anteriorly and laterally; the difference of circumference between the sides (measured from the xiphoid cartilage to the spinous process of the opposite vertebra) amounts to an inch and a half. He lies exclusively on the dilated side; coughs a great deal, and in violent paroxysms; expectoration copious, and appears to consist wholly of mucus. Says that he feels no pain whatever, nor can he recollect any sensation of tearing, or of violent pain, suddenly affecting his side.

"On employing percussion, the dilated side yields a duller sound than the left: this, however, is evidently owing, in a considerable degree at least, to the infiltration of the subcutaneous cellular tissue of the right side, on which he constantly lies. Both anteriorly and posteriorly, the natural respiratory murmur is extinct all over the right side of the chest; and from the eighth rib upward its place is supplied by a loud *bourdonnement amphorique*, accompanied, when he coughs or speaks, by a well-defined *tintement métallique*. No fluctuation is heard on succussion, or change of posture. At the left side the respiration is puerile, and the bronchial tubes are felt vibrating under the hand when applied over the supra-spinal fossa.

"*Diagnosis.*—Pleuro-pneumo-thorax, with fistulous communication between the bronchia and the right sac of the pleura, is unequivocally demonstrated by the stethoscopic phenomena. The

cause of this communication is not, however, so apparent; his appearance, and the history of his previous health, seem incompatible with the development of tubercles to such an extent as is usually observed in those cases where their bursting into the sac of the pleura gives rise to the extravasation of air, an event of infinitely rare occurrence, unless in the last stage of phthisis." (P. 484.)

The symptoms gradually increased, the principal alteration in the stethoscopic phenomena being that fluctuation had become evident in succession, and that, when he sat up in bed, a drop was heard to fall with a peculiar metallic sound striking upon the surface of a fluid, about the level of the seventh rib; below this, the sound on percussion was dull. Suffocation being threatened, it was resolved to perform the operation of paracentesis thoracis.

"The patient being seated in bed, an incision was made by Mr. M'Dowell between the eighth and ninth ribs, (counting from above downwards,) at about three inches from the spine. When the muscles were divided, fluctuation was distinctly felt through the pleura: the division of this membrane was followed by a violent gush of yellow, puriform fluid, of a peculiarly heavy, disagreeable smell; at first this fluid came away in a continued stream, but its flow soon became interrupted, each jet corresponding to an effort of expiration. When about three pints, or rather more, of this fluid had flowed out, a loud rush of air followed, and continued for some minutes to issue from the wound, with considerable force, at each expiration.

"At this period of the operation, the patient uttered two or three agonising groans, and appeared on the point of fainting: the wound was immediately closed, and he quickly recovered his composure and the use of his voice, expressed himself greatly relieved, and his countenance brightened up considerably. The wound was dressed with adhesive plaster, and a flannel roller applied round the thorax. In half an hour after the operation, the pulse had improved considerably in strength and regularity, though its rapidity was scarcely diminished (150); his respiration, though much less laboured, retained its frequency (40). The alteration in the stethoscopic phenomena was very striking; the *tintement* and *bourdonnement* had totally disappeared, but the voice reverberated loudly, as in a vast phthisical cavern." (P. 490.)

The operation was performed on the 31st of October, and the patient, though he expressed much relief, gradually sank, and died early on the morning of the 2d November. About the middle of the lower lobe of the right lung was found a fistulous opening with indurated margins, capable of admitting the point of the finger.

*Sketch of a Medical Report on the Epidemic Dysentery which prevailed in Dublin in 1825.* By Dr. O'BRIEN.

Numerous well-marked cases of dysentery occurred at the period alluded to; but we shall confine ourselves to an account of the method of treatment found most successful. The patient, if young and robust, was bled to ten or fourteen ounces, provided he was seen in the first stage of the disease. He was then put into a warm bath at rather a high temperature. After this the whole body, but particularly the belly, was rubbed with camphorated oil; the patient was then swathed in a flannel bandage, drawn tightly round the abdomen, and put to bed. The next step consisted in the administration of a bolus, containing ten grains of calomel, one (or sometimes two) of opium, and occasionally combined with antimonial powder. This was repeated every eight hours, the anodyne effects of the opium not extending beyond that period. For the most part, the patients were brought to the hospital rather late in the day, and the measures above mentioned occupied the first evening and night after admission. Next morning, a purgative draught, containing castor oil, senna, rhubarb, and neutral salts, variously combined, but always having some tincture of opium, was exhibited. If the symptoms still continued urgent, the patient was now bled a second time, and the bath repeated, and the calomel and opium continued, alternated with purgatives, until the disease yielded, or the gums became affected. When this took place, the mercury was omitted, and the other medicines continued without it. In many instances, Dover's powder was substituted for opium, and this preparation is very highly spoken of by our author.

When patients were admitted who were more advanced in life, or when the disease had already passed its earlier stages, the bleeding was omitted, and the treatment with calomel and opium, alternated with purgatives, adopted. Here also the mercury was omitted as soon as the mouth was affected; after which the decoction of simarouba, with laudanum in sufficient quantity to mitigate the pain, was given every six or eight hours. With regard to the Simarouba, the author remarks, that "a tolerably extensive experience of its effects induces him to believe that it possesses considerable astringent powers, and that, combined with opium, it is an antispasmodic of no mean efficacy."

The next paper consists of *Clinical Observations made during the Epidemic Fever of 1826*, by Dr. REID. The most interesting part of this communication consists in some cases in which the hydrochloruret of lime was exhibited, and which will be found among our HOSPITAL REPORTS.

## COLLECTANEA.

Floriferis ut apes in saltibus omnia libant,  
Omnia nos, itidem, depascimur aurea dicta.

### ANATOMY.

*Termination of the Stomach in a Cul-de-Sac.*—A CHILD, born at the eighth month of pregnancy, presented externally a natural appearance. Six hours after birth, it vomited a considerable quantity of dark fluid, resembling half-coagulated blood. It died in about sixty hours. The stomach was found much distended, and occupying nearly the whole of the left side of the abdominal cavity. Its internal surface was spongy and inflamed, and black in different parts. There were also several bubbles of air, which were probably produced by gangrene. The pyloric extremity communicated with a pouch, or second stomach, in which the only opening that existed was the duct of the pancreas. There was no communication whatever between the stomach and intestines. The intestines were shrunk, and lay between the stomach and liver, in an agglomerated mass.—*Med. Zeitung.*

### PHYSIOLOGY.

*On the Influence of the Pneumo-Gastric Nerves.*—MR. E. WARE observes, that there is nothing more frequently praised than the certainty of the evidence of natural truths. Each writer in his turn thinks his discoveries completely established, and arrays his alleged facts in an apparently resistless phalanx. But almost every one who elicits novelties is, in spite of his confidence, subjected to controversy and contradiction. His facts are denied, his experiments refuted, his conclusions declared inadmissible, and his veracity and philosophical honesty called into question. These reflections were suggested by a perusal of the written conflict respecting the influence of the eighth pair of nerves on digestion. The experiments of WILSON PHILIP illustrative of the influence of the eighth pair of nerves on respiration and digestion, have been subsequently repeated by an English writer, BROUGHTON, and results diametrically opposite been reported. In order to satisfy myself as to the cause of such discrepancy, and, if possible, to ascertain the truth, free from all bias or prepossession, I instituted the following course of experiments, assisted by Dr. J. H. FINLEY, and others of my medical friends.

Experiment 1.—After causing two rabbits, of the same age and size, to fast for the space of sixteen hours, I gave them as much parsley as they would eat. One of them I set at liberty. In the case of the other, I divided the nerves of the eighth pair, about midway in the neck. The division was immediately followed by difficult respiration, soon attended with a croaking noise, and gradually increased until death supervened; which happened in six hours and a half after the operation. The other rabbit was then killed, and a comparative examination made. The stomach of the one subjected to the operation was much distended; the general mass of food had undergone but little change: that part which was in contact with the parietes of the stomach was altered in colour, and somewhat in consistence, resembling partially digested matter. The central parts retained their natural colour and



odour, and resembled finely chopped parsley. The lungs were largely engorged with blood, but did not sink in water. The trachea and air cells contained a frothy fluid.—The stomach of the rabbit not operated on was hard and contracted, and about half the size of that of the other. That part of digestion confided to the stomach was comparatively completed; for though all the contents had not passed out at the pylorus, yet what remained was a uniform chymous mass, more compact and dry at the pyloric than towards the central or cardiac portions.—This experiment was satisfactory and conclusive, and was followed by six others of a similar nature, all of which gave uniform results.

Experiment 2.—A half-grown cat was kept without food for twelve hours, and then one ounce and a half of raw beef was given. In fifteen minutes after, I divided the eighth pair of nerves. The usual symptoms followed, differing from those of the last experiments only in degree: respiration was deep, slow, and laborious, attended with a croaking noise, and apparent efforts to vomit, which continued to increase for ten hours, when, from the great distress and prostration, I was induced to kill it. Upon examination, no change was perceptible in the food, except in the circumference, which had lost its livid hue, and resembled beef shortly after being placed in warm water. It had lost nothing in weight. The lungs were engorged with blood, and the trachea filled with frothy fluid slightly tinged with blood.—This experiment was also confirmed by one other.

Experiment 3.—Having caused two rabbits, of the same age and size, to fast for sixteen hours, I allowed them as much cabbage as they could eat, after which I made a section of the eighth pair of nerves in each. One I set at liberty. The other, the hair being shaved, on either side, from the region of the stomach, I submitted to the influence of a galvanic trough, containing fifty pair of four-inch plates; the intervals being filled with sulphuric acid and water, in the proportion of one of acid to sixty of water. A gentle and uniform twitching of the muscles of the trunk was kept up, by the occasional addition of acid, for six hours; at the end of which time (the animal being almost exhausted) it was killed by a blow upon the occiput. Examination being made, the stomach was found distended as in the preceding experiments; the external part of the contents was changed in colour and somewhat in consistency, so as to resemble a chymous mass; whilst internally it was as if it had been chewed and swallowed. The lungs were engorged, though not quite so much as usual. During the process, the respiration exhibited the phenomena seen in the other cases. The trachea contained a frothy fluid. This animal ate nothing after the operation, and nothing was found in the œsophagus.—In half an hour after, (six hours and a half after the operation,) the other rabbit died: the stomach and its contents resembled in every respect that of the galvanised rabbit. The lungs were more largely engorged with blood, which constituted the only apparent difference.

Experiment 4.—A rabbit, after fasting, was afforded as much parsley as it would eat; when the hair was shaved on the back, near the region of the stomach, and a small plate of tin bound thereon: the eighth pair of nerves were divided, and about a quarter of an inch of the lower section of each coated with tin foil. The tin foil and tin were connected with the opposite poles of the galvanic trough, and a uniform effect kept up for five hours and a half, when the animal died. Its respiration during the process, the state of its

stomach, food, lungs, and trachea, differed in no particular from those in the immediately preceding experiments.

Experiment 5.—Two rabbits were caused to fast for twelve hours, when there was given as much cabbage as they would eat. The one remained in its natural state. In the other, the pneumo-gastric nerves were divided, and submitted to the galvanic power as in the last experiment, and a uniform effect was kept up for seven hours, when the animal died. Upon examination, it was found to differ in no perceptible degree from those in which the nerves had been divided. Whilst the stomach of the healthy rabbit exhibited the contents diminished in quantity, and in a completely chymous state, and in the pyloric portion comparatively dry and compact.

These experiments, made with much care, time, and labour, serve to show the great caution with which we should receive the accounts of even experimental inquiries. They afford results agreeing with those of Dr. Philip, respecting the effect on digestion by the division of the par vagum; for by that section digestion is almost totally arrested; and, although they would indicate partial action, it is so slight that it may be justly attributed to the healthy secretions of the stomach poured out immediately preceding the operation. Although secretion, the alleged cause and, as we believe, the *primum mobile* of chymification, does not cease after the division of these nerves, but, on the contrary, appears to be augmented, yet, inasmuch as it is incapable of changing food to chyme, it must be morbid. Another apparent barrier to chymification is the deficiency of action in the muscular coat of the stomach, known from the violent and ineffectual efforts to vomit,—symptoms constant and remarkable, particularly in cats,—and as proved in those rabbits which were permitted to eat after the operation, where food was found in the œsophagus itself. But when we endeavour to institute the galvanic irritation for that action carried on through continuous nerves, we cannot confirm either the facts or conclusions of Philip. Our results are entirely contradictory of his: and we are compelled to acknowledge our belief in the inaccuracy of his galvanic experiments, and stand prepared to deny that there is yet any good reason for believing in the identity of galvanism and the mysterious principle of life.

Death, in all the cases here related, seemed to be caused rather by the state of the lungs than by that of the stomach; for the engorgement and obstruction in the organ of respiration put finally an entire stop to the access of air into the bronchial cells, and suffocation ensued.—*North American Medical and Surgical Journal*.

#### PATHOLOGY.

*Chronic Inflammation of the Arteries*.—A lady, sixty-five years of age, who had been subject to frequent headache, and rheumatic and gouty pains, was attacked, during the latter period of her life, with the following symptoms: From the commencement until the time of her decease, her pulse was very irregular. Frequent attacks of dyspnœa, which were only relieved by bleeding. Urine scanty, of a red colour, and turbid. Pain in the præcordia. Numbness of the whole of the left side. Violent pains in the limbs, which were alleviated by leeches. After death, the internal membrane of the aorta was found in a highly inflamed state, especially at the points where any small arteries branched off. There were also various spots of ossification in the course of the artery.—*Med. Chir. Zeitung*.

*Observations on some Points of Pathology.*—Dr. HORNER states, that a fine injecting matter may be pushed into any vessels into which red particles of blood can naturally penetrate. He has repeatedly filled the whole venous system from the arterial, so as to display all the fine venous meshes under the skin, and to infiltrate the body completely. Judging from these experiments, he is disposed to think that some of the phenomena of inflammation arise mechanically, and that the substance effused from vessels is in a measure according to the mass and momentum of blood flowing through them. Thus, when irritation determines an increased afflux of blood to a part, if the calibres of vessels are not large enough to permit it to pass freely from the arteries into the veins, serous infiltration first of all occurs: if the afflux be augmented, then coagulating lymph, the particles of which are larger, is effused; and if there be a further augmentation of afflux, the red particles of blood are then effused through the lateral porosities of the vessels. The corresponding phenomena in fine injections are, first the water, then the size, and lastly the colouring matter, from its particles being the coarsest of the mixture.

Though many dropsical effusions may be traced to irritation, yet he is disposed to think that some very great errors have been incorporated with their pathology, from the desire to adapt all the phenomena to one standard,—to wit, inflammation. This at least he is convinced of, that in fine injections of whole adult dropsical subjects, no resistance scarcely is offered by the blood-vessels, and that the injected fluid escapes from them by their lateral parietes or porosities, as fast as it can be thrown in; manifesting thereby evidently a great laxity in their texture. This escape is generally in the order in which we see dropsies occur,—first in the ankles and feet, then up the lower extremities to the trunk; in the hands and wrist, and then up the pectoral extremities to the thorax.

The purpura urticans which occurs in the skin in dropsy, seems to be an extravasation of blood arising from the same passive or loose texture of the blood-vessels. He has repeatedly seen the same sort of ecchymosis in the muscles of dropsical subjects, and in the interstices between them.

Pathologists have said much on the distinction between venous and arterial capillary hemorrhage: he doubts very much the practicability of making out either case very clearly and distinctly from the other, yet they have rather unsoundly drawn the inference, that spontaneous bleeding from the venous system is passive, while that from the arteries is active. Judging from mechanical arrangement, he is inclined to think that all hemorrhage, not arising from violence or mechanical injury, comes from the arteries; inasmuch as microscopical observation teaches us that the blood, in getting into the extreme arteries, is there confined to the smallest sanguiferous channels, and it is of course there that rupture is most likely to occur; for, so soon as the blood reaches the veins, the channels are larger, more dilatable, and therefore less liable to be broken. Genuine venous hemorrhage is probably most frequently the result of obstruction to a large venous trunk, either by pressure on it or by something similar: thus we see in women, during pregnancy, bloody spots of ecchymosis on the legs from ruptured veins; and, in persons with varicose ulcers, frequent bleeding from the latter, when the erect position puts too great a column of blood upon them.

Red blood is excreted from the pleura in its severe inflammations; and, judging from what he has observed, the order of the effusion is first serum, then coagulating lymph, and then red particles of blood, all of which may, as in

inflammation of other textures, be indicative of the gradual dilatation of the blood-vessels. The most remarkable instance of this successive secretion, excretion, or effusion, whatever it may be called, that he has met with, occurred the last winter in the Pennsylvania dissecting rooms: in this case the marks of inflammation were all recent, and had supervened upon a tuberculous phthisis of both lungs. When inflammation occurs in the pulmonary tissue itself, it is always marked by an accumulation of red blood in their structure, giving them a red purple colour, (BICHAT, *Anat. Gen.* vol. ii. p. 62,) by their increased weight, diminished elasticity, and by their being much more watery than usual, probably from the serum being separated from the red blood after death. There is also a considerable quantity of frothy mucus in the bronchia. This state of the lung is most frequently attended with a recent effusion of coagulating lymph on the pleura, and by a bloody serum in the thorax. It is, however, to be observed, that bloody serum being found in the cavity of the pleura is not an absolute proof of its being secreted or discharged in that state, because if the examination be much postponed after death, the serum effused may be tinged by the lung soaking in it.

It is owing to the blood-vessels of the lungs being so superficial, that, as in the intestines, their inflammations pass off either by an increase of their natural secretion of mucus, or by the effusion of serum and of blood. LAENNEC has said (vol. i. p. 116,) that a collection of pus in the pulmonary tissue, in consequence of inflammation, is one of the rarest of cases,—at least it is one hundred times more rare than a vomica from tuberculous matter, and a thousand times more so than empyema. In all the dissections of lungs that he has made, he has met with it but once, and that lately, (June 29th, 1827,) at the Almshouse, in which case the surrounding part of the lung was gangrenous.—*American Journal of Medical Sciences.*

#### PRACTICAL MEDICINE.

*Chronic Bronchitis treated by the external Application of the Acetate of Morphia.*—A woman, fifty-five years of age, of a nervous and delicate constitution, had suffered a long time from a catarrhal affection, after having had several attacks of bronchitis. The symptoms were particularly severe at the menstrual periods. Fourteen years had elapsed since the commencement of the malady, and no benefit had been derived from the various modes of treatment that had been tried. She was much emaciated, had constant cough, with thick greyish expectoration. A sensation of itching along the trachea much annoyed her. By percussion and auscultation, it was ascertained that the lungs were not organically diseased. From the failure of all the previous efforts to relieve her, a new mode of treatment was determined upon. The bowels having been constipated for some days, five grains of powdered aloes were placed upon a blister, which had been applied to the left arm. Ten hours afterwards, she had several motions, and slight colic. Half a grain of acetate of morphia in fine powder was next applied upon the blistered surface. In a quarter of an hour, the itching of the trachea, the cough, and oppression of the chest, were diminished. On the following day, one grain of the same medicine was applied in a similar manner. In the course of an hour, the patient felt herself decidedly relieved, and she enjoyed some sleep, which she had not done for a long time before.

The dose of the morphia was gradually increased to two grains, and in a

short period the cough was nearly cured. To ascertain positively whether the relief had depended upon the effects of the medicine, it was discontinued, and all the symptoms quickly returned. To prevent the possibility of the mind of the patient having any influence, in consequence of which a false opinion would have been formed of the effect of the morphine, she was frequently deceived. It was very evident, however, that the amelioration of the symptoms was owing entirely to the use of the morphine.

By slow degrees, the quantity was increased to four grains, and from this period she daily recovered. She gained flesh, and presented a healthy appearance.—LEMBERT, *Méthode Endermique*.

*Use of Gymnastic Exercises in Chorea.*—M. LOUVET LAMARRE has lately published a case tending to prove that gymnastic exercises, judiciously employed, are of use in this disease. A young lady had had two or three paroxysms each year for several years. Each paroxysm lasted "*plusieurs mois*." The convulsions were so violent that she was obliged to be assisted in eating. The superior extremities were the parts principally affected, and these were thrown into the most sudden and irregular motions. Her sleep was much disturbed. Leeches were applied behind the ears, the warm bath was used, and the spine was rubbed with camphorated liniment. At the same time the patient was desired to exercise herself with a skipping-rope, as long as she could bear the exertion. An amendment soon took place. Her general health improved. At first, the convulsive motions ceased only after she had exerted herself with the rope, but they soon disappeared entirely. The attack lasted but twenty days.—*Nouvelle Bibl. Méd.*

In all convulsive affections, in which the patient retains his mental faculties, it is important to abstract the attention as much as possible from the state of the affected parts. Hiccup is often relieved by mental excitement. We have at this moment a young lady under our care, who suffers severely from chorea; but, if her mind is actively employed in any amusement, the symptoms disappear.

Professor CRUVEILHIER adopted an ingenious expedient in a case of traumatic tetanus, which has some analogy with the suggestion of M. Louvet Lamarre. The patient was afflicted with the most severe and alarming convulsive action of the diaphragm. He was induced to take very deep and measured inspirations. The convulsions abated, and soon ceased entirely.

At the Salpêtrière, chorea is considered so trifling, that no remedy is employed. As the disease, however, frequently depends upon some obvious derangement of health, such negligence is not to be justified.—E.

*Practical Observations on the Datura Stramonium.*—DR. CUNNINGHAM gives the following as the results of his experience with regard to stramonium.

The first disease in which I used the plant was the *asthma*. During the paroxysm of this distressing complaint, I have directed the seeds to be smoked until vertigo was produced, which almost invariably terminated the paroxysms. The beneficial effects of the plant, thus used, induced me to try its efficacy in preventing the attack. I accordingly directed my patients to smoke the seeds until vertigo was produced, whenever they felt the premonitory symptoms of the disease: this has uniformly prevented its occurrence. In several cases I have reason to believe that a complete cure has been

effected. In the summer of 1818, I was called to see a woman, labouring under a violent attack of this disease. The smoking of one seed removed the existing paroxysm. She then informed me, that for fifteen years she had been afflicted with the disease; that it was brought on, as she believed, by a sudden cessation of the menses, from exposure to severe cold. For several years the attack was monthly; it then came on every two weeks; and, for the last two years, she has had an attack every week. Generally the paroxysm is slight, especially in the summer season, but occasionally it is very violent, and frequently continues, especially in the winter season, for two or three days. In this case, with but a faint hope of a final cure, I directed the remedy to be used whenever she felt any symptoms of an attack. Six months after this time I again saw this patient. She had succeeded, by means of the remedy, in preventing any recurrence of the disease. As above stated, one seed produced vertigo when first used; now she smokes a pipe full. In the fall of 1819, I once more saw this woman: she still continued free from the disease, and had not for several months used the medicine.

In *epilepsy*, although I cannot relate any cure, still I have realised the happiest effects from the stramonium. Twenty grains of the powdered leaves, three times a day, and of the saturated tincture, made of the bruised seed, a teaspoonful every six hours, were taken by a patient of mine, a boy fourteen years of age. Previous to his taking the medicine, he had from ten to thirty fits every twenty-four hours. The medicine produced first an abatement of the violence of the fits, then of their number, and, when the ultimum dose was attained, a complete cessation of the fits for six weeks. The medicine was omitted by the friends of the boy: the fits returned, and proved fatal. Notwithstanding the disease in this instance had existed for eight years, and had attained to a great degree of violence, still, from the effects produced by the medicine, I was induced to hope for a favorable termination, if the remedy had been persevered in. The medicine in this case operated freely on the bowels, and the morning doses produced dilatation of the pupil, which continued but for a short time.

The stramonium will be found a valuable remedy in *inflamed ulcers*, and in those ulcers attended with great irritation, for which the *Conium Maculatum* has been found so highly useful. The bruised leaves may be applied, or, what in some cases answers a better purpose, the leaves wilted by pouring boiling water over them, and applied warm, will prove a very soothing application.

In *inflammation of the mammae*, I have found the warm stramonium poultice a valuable discutient.

In *hemorrhoids*, the bruised leaves in some cases, in other cases the warm poultice, have proved the most valuable remedy I have ever tried.

The disease to which I wish most particularly to call the attention of my medical brethren, and for which the stramonium is the most valuable remedy that I have known to be used, is a sequela of the fevers of southern climates and an almost universal attendant of the intermittents of this section of country. I mean the *enlargement of the spleen*, or ague cake, as it is generally termed. The immense size which this viscus attains is hardly known to practitioners in northern climates. The rapidity of its growth is truly astonishing; and although it occasionally, without any direct means, diminishes in size, so as to be no longer troublesome to the patient, it generally proves very difficult to remove, and is very grievous to the person afflicted therewith. I first saw this disease in Batavia, in the year 1804; the treatment I then recommended

was that usually prescribed for chronic hepatitis. Since my residence in this part of our country, I have had frequent opportunities of treating this disease in the manner thus practised. In some cases I have been successful, in many I have failed. For the last three years I have had recourse to the stramonium. Externally applied, I am warranted in saying that the leaves, wilted by boiling water, and applied as a poultice over the enlarged spleen, as warm as the patient can bear, and renewed night and morning, will, if persevered in, completely remove the disease. It will be necessary to keep the bowels open, by taking a small portion of Epsom salts every night. By this means I have not failed to remove the disease in a few days, in recent cases: those of long standing will require perseverance in the remedy for several weeks. In the following cases, a small variation in the treatment was rendered necessary from peculiar circumstances.

On the 9th of September last, I was called to see G. D., a man of thirty-five years of age, and found him labouring under an enlargement of the spleen, which extended nearly down to the ileum, and across the abdomen, two inches to the right of the umbilicus, and (as well as I could judge) the thickness was fully three inches. The disease had existed for several years, but had given no particular uneasiness except from its bulk, until four days ago, when inflammation, accompanied with great pain and soreness of the abdomen, had ensued. He had bled himself freely, and had applied a large blister, without relief. The pain was very acute at night; in the morning it abated.

R. Sal. Epsom.  $\mathfrak{z}\text{ij}$ .; Sal. Nitri.  $\mathfrak{z}\text{ij}$ . Mix; dissolve in  $\mathfrak{z}\text{viij}$ . of water. A tablespoonful to be taken every hour, until the bowels are freely operated upon.—Afterwards take a pill containing three grains of opium and two grains of tartar emetic. These medicines to be continued every day, until the pain be removed.—The stramonium poultice to be applied night and morning.

On the 16th, I again saw my patient. The spleen was no longer to be felt, the abdomen free from pain and soreness. Colic pains were troublesome for several days after this time.

On the same 9th of September, I was called to a child of R. W., three years old. She complained of pain and soreness of the belly; the spleen occupied as much space as in the former case. There being some symptoms of worms, I directed the following combination:

R. Calomel gr.  $\text{vj}$ .; Gambogi gr.  $\text{vj}$ . Mix; divide into six equal portions; one to be taken night and morning in syrup.—The stramonium poultice to be applied night and morning.

On the 16th, the child was free from complaint; the spleen not to be felt.  
—*North American Med. and Surg. Journal.*

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## INTELLIGENCE.

### MONTHLY REPORT OF PREVALENT DISEASES.

THE weather, during the last month, has had but little of the appropriate characters of the season, and although at the moment we write it has become genial, yet the change is too recent to have produced any of the diseases of summer. The vicissitudes of temperature during the period comprised in the present report have produced a great number of cases of rheumatism, some

of which have been rather acute. Catarrhal affections have also been prevalent, although not very severe. One of the most remarkable circumstances which has presented itself to our notice has been some cases of fever, in which the continued has passed into the intermittent form, and required the exhibition of quina. In some of these, swellings have taken place in the glands in different parts of the body, and, becoming chronic, have proved exceedingly troublesome.

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*College of Physicians.*—A series of evening meetings have recently been held at the College of Physicians, to which all the respectable members of the profession in its different departments have been invited. These meetings have been numerous, attended, and have certainly tended to produce an amicable feeling among those present. Various papers have been read, particularly one on *Tic Douloureux*, by Sir H. HALFORD; on *Vaccination*, by Dr. MACMICHAEL; on the *Treatment of Inflammation*, by Dr. YEATS; on *Ossification of the Arch of the Aorta*, by Dr. WARREN; and on some of the different forms of *Mental Disease*, by Dr. LATHAM.

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Dr. HOLLAND.—We understand that this gentleman has just been added to the list of Fellows.

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*Anatomical Committee.*—The Report of this Committee, so long expected, has not yet been presented.

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*Westminster Hospital.*—It is in contemplation to build a new hospital, not on the site of the old one, but near St. Martin's church.—We believe the measure is not yet fully decided on.

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*London University.*—It is announced that the Courses are to commence in October. The following are the medical arrangements:

*Anatomy*, every day (except Sunday), from two to half-past three,—Mr. G. S. PATTISON.

*Dissections and Demonstrations*, every day,—Mr. J. B. BENNETT.

*Physiology*, Monday, Wednesday, and Friday, from eleven to twelve,—Mr. C. BELL.

*Comparative Anatomy and Zoology*, Monday, Wednesday, and Friday, from three to four,—Dr. R. GRANT.

*Surgery*, Monday, Wednesday, and Friday evenings, from seven to eight,—(Professor not yet appointed.)

*Treatment and Nature of Diseases*, every morning (except Saturday), from nine to ten,—by Dr. CONOLLY.

*Midwifery and Diseases of Women and Children*, Monday, Tuesday, Thursday, and Friday evenings,—by Dr. D. D. DAVIS.

*Materia Medica and Pharmacy*, every morning (except Saturday), from eight to nine,—Dr. A. T. THOMSON.

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*Medico-Botanical Society of London.*—A meeting of this Society was holden on Friday, the 13th instant, at its apartments, 32, Sackville-street, Piccadilly; Sir BENJAMIN HOBHOUSE, Bart. F.R.S. Vice-President, in the chair. The minutes of the last meeting having been read and confirmed, a letter from Sir JAMES M'GRIGOR, President of the Society, addressed to Mr. YOSY, Secretary, was read: it contained another from the Right Hon. ROBERT



PEEL, his Majesty's principal Secretary of State for the Home Department, conveying to the Society the pleasure his Majesty felt in becoming the Patron, and expressing his best wishes for the success of their useful exertions in a very important department of science.

A letter was read from the East-India Company, informing the Society that the Court of Directors had granted them duplicates of all the medical plants in their extensive Herbarium.

A letter was read from his Majesty the King of Bavaria, announcing that the collection which his Majesty had ordered was, through the care of Professor MARTIUS, now ready, and would be delivered to the Society in a short time by the Bavarian ambassador in London, Baron de CETTO. The collection was said to consist of upward of 600 specimens.

Mr. FROST, the Professor of Botany, then delivered a lecture on the genus *Laurus*, a splendid collection of which was exhibited to the members, there being no less than eighteen living species from his Majesty's gardens at Kew, furnished by the kindness of W. T. AITON, Esq. Beside these, there were thirteen other species, contributed by Messrs. LODDIGE, of Hackney, Mr. RICHARD FOREST, Mr. DAVID CAMERON, Mr. FAIRBURN, and Mr. RICHARDSON. This genus is particularly rich, as it is from it that many valuable medicines are procured, such as camphor (*Laurus Camphora*), cinnamon (*Laurus Cinnamomum*), sassafras (*Laurus Sassafras*), bastard cinnamon (*Laurus Cassia*), &c.

A complete bowl of camphor was exhibited, as also several other pharmaceutical preparations.

The chairman had announced that a vacancy had occurred in the professorship of *Materia Medica*, candidates for which were requested to send in their testimonials as early as possible, as the vacancy would be filled up at the ensuing meeting.

The chairman announced that the first fasciculus of the first volume of the *Transactions of the Society*, illustrated with two coloured engravings of the *Melaleuca Cajuputi*, and *Melaleuca Leucadendron*, was now ready for delivery to the members.

The committee also announced, that a paper on the Doubtful Identity of *Bonplandia Trifoliata* and *Angustura Bark*, by Dr. JOHN HANCOCK, would be laid before the next meeting, to be holden on the 11th July, 1828.

*Supply of Water to the Metropolis.*—The following remarks on this subject are made by Dr. RYAN :

Public attention has at length been aroused to the means of supplying this vast metropolis with water, a fluid so important to human existence. This has been effected by the highly meritorious exertions of an individual, (Mr. Wright, of Regent-street.) An anonymous pamphlet appeared, styled the *Dolphin*, a name adopted by one of the companies which supplies the western part of the town with water, which so exposed the contaminated state of the fluid supplied, that a meeting of all the rank and respectable inhabitants of that district took place, who, among other things, resolved, "That the water taken up from the river Thames at Chelsea, (the site of the *Dolphin*,) for the use of the inhabitants of the western portion of the metropolis, being charged with the contents of the great common sewers, (and others, perhaps 10,000 in number,) the drainings from dunghills and laystalls, the refuse of hospitals, slaughter-houses, colbours, lead, and soap works, drug-mills and manufactories,

and with all sorts of decomposed animal and vegetable substances, rendering the said water offensive and destructive to health, ought no longer to be taken up by any of the water companies from so foul a source;"—that the water was pronounced by professional men of the first eminence to be "a filthy fluid, loaded with decayed vegetable matter, and other substances equally deleterious to health, and unfit for domestic purposes." A petition was presented to both Houses of Parliament, praying that a commission should be appointed by his Majesty, "to inquire into the supply of water in the western part of the metropolis;" which commission was granted. The commissioners summoned a vast number of witnesses, and drew up a Report on the evidence, which extended to 154 folio pages; the substance of which was a perfect confirmation of the allegations of the petitioners, as to the impurity of the water supplied to the metropolis, but that there was an abundant supply. This Report was submitted to Parliament; but the Right Hon. R. Peel, his Majesty's Secretary of State for the Home Department, was of opinion, as the supply was abundant, that the government ought not to take up the subject, but leave it in the hands of the public. This is the most remarkable instance of the apathy or inattention of that great improver of abuses, to the public interests. Posterity will scarcely credit that a statesman, who has effected so many invaluable legal improvements, could have excluded from his consideration a subject of such vital importance to every human being in this mighty metropolis. The public at large, however, are unanimous in their decided intention of renewing their application to the legislature, which sooner or later must comply with the just and reasonable prayer of their petitions. It appears from the Report of the commissioners, that a parallel instance of gross impurity and filthiness, in the supply of water to the inhabitants of a large city, cannot be equalled in any other part of the globe. Different specimens of the water supplied—of that fluid which enters into the composition of animals and vegetables, and so powerfully and extensively assists the evolutions of the solids, and composes the greater part of the fluids in the human body,—were examined by the most eminent medical men, and analysed by our most distinguished chemists, who unanimously declared "that such specimens were loaded with a great quantity of filth, which renders such water disgusting to the senses, and improper to be employed in the preparation of food." Surely such a monstrous evil requires a remedy. That fluid, which is the vehicle of human food and nourishment, must have a constant and powerful agency on the animal machine at all times, a constant and regular operation on the human body; and hence the great necessity of the purity and salubrity of that fluid. So great has been the deterioration of the water in the Thames, that fish can no longer live in certain parts of the river; and that they cannot be preserved in such water for any length of time after removal.

The principal causes of the impure and deteriorated state of the water of the Thames, which supplies a very considerable part of the capital, are the refuse of animal and vegetable matters, which are now allowed to flow into the common sewers, and thence into the river; the refuse of the coal gas, which pollutes the river in many parts; the quantity of dead animals constantly thrown into the water; the refuse of slaughter houses; and the hideous and abominable exuvie of one million of inhabitants. Such are the ingredients that are dissolved, mechanically suspended, or chemically combined, in the water which supplies the western, the most influential and fashionable part of the British capital.

It appears from the Report of the commissioners, that the water of the New River is by far the purest source of supply, and that it occasionally derives only a small quantity from the Thames, when there is a severe frost, or great drought. "The New River and Hampstead waters (says Dr. James Johnson) are ethereal streams, compared with those of Chelsea." The commissioners also acknowledge the superiority, but observe "there is still room for improvement." The commissioners, as if anxious to please all parties,—the public at one time and the water companies at another, (and perhaps may fail in pleasing either,)—assert that the water may be filtered in the beds of sand in the river; but, if the matters be in solution, or chemically combined, that filtration cannot be perfect, as the water can be only partially purified. They obtained specimens of the water at its average state, and after a fall of rain, and from that district where it is said to have been impregnated with copper derived from the bottoms of the ships. I have already stated the result of chemical analysis, namely, "that all the specimens being loaded with filth, which renders the water disgusting to the senses, and improper for the preparation of food;" and I may add, "that it contained no copper." Yet the able chemist, Dr. Bostock, asserts "that the greatest part, if not the whole, of the extraneous matters may be removed by filtration." The commissioners are of opinion that, if the quality of the water which supplies the capital be objectionable, any remedy of a local nature will be comparatively unimportant. On the whole, they observe that the supply is capable of, and requires improvement. They do not sanction any of the proposed plans of improvement, as their time would not allow them to investigate the subject fully; and their earnest hope is, that its full investigation, by competent persons, will not long be deferred; and that the supply ought not to be left to the discretion of the companies, and that their proceedings should be subjected to some effective superintendence and control.

What are the remedies best calculated to obviate the present defects? They consist of three,—namely, the conveyance of pure water from ten or twenty miles distance to the metropolis; and to destroy the monopoly which so glaringly exists; or to sink wells, or fountains. The city of Edinburgh was once situated as London now is, but excellent water was soon discovered, and conveyed a distance of ten or twelve miles: and cannot such an example be followed by the most wealthy and populous city in the world? All will admit that such an undertaking would be most readily accomplished. The Thames water might be dispensed with altogether for internal use. Two centuries ago, Sir Hugh Middleton succeeded in bringing pure water from Hertfordshire to the capital, a distance of forty miles. "What is there (says Mr. Wright, in his interesting and valuable Memoir to the commissioners,) that should deter the inhabitants of the richest, largest, most populous city in the world, the seat of more opulent nobility and gentry than is to be found in any other metropolis, from attempting one of those mighty efforts which fix the character of a country, and elevate it in the scale of nations, to remove from that city a *national disgrace*." The day must soon arrive when these suggestions will be attended to, and an object of such vital importance to the health and lives of nearly a million of inhabitants carried into effect. New pipes and tubes could be laid down, for the sole purpose of conveying pure water, and perfectly disconnected with sewers of any kind; and the present supply should be improved, and be continued for the inferior domestic uses.

## MONTHLY LIST OF MEDICAL BOOKS.

[Medical Works cannot be entered on this List except a copy be sent for the purpose; the titles of Books having frequently been transmitted to us, as published, which have not appeared for weeks, or even months, after.]

**Elements of the Theory and Practice of Physic.** By G. GREGORY, M.D. &c. &c. Third Edition, with numerous Additions and Amendments.—1828.

**Cases of Mental Disease, with Practical Observations on the Medical Treatment.** For the use of Students. By ALEXANDER MORISON, M.D. &c. &c.—8vo. pp. 164. Longman and Co. London, 1828.

**Deafness, its Causes, Prevention, and Cure.** By JOHN STEVENSON, Esq.—8vo. 262. Colburn, London, 1828.

**On the Curative Influence of the Southern Coast of England, especially that of Hastings.** With Observations on Diseases in which a Residence on the Coast is most beneficial. By WM. HARWOOD, M.D.—8vo. pp. 326. Colburn, London, 1828.

**Statement by Dr. FORBES, of the Circumstances which led to his Resignation as Physician to the Royal Westminster Eye Infirmary, &c. &c.**—pp. 47.

## METEOROLOGICAL JOURNAL,

From May 20th, to June 20th, 1828.

By Messrs. HARRIS and Co. Mathematical Instrument Makers, 50, High Holborn.

May	Rain gauge.	Moon.	Thermom.			Barometer.		De Luc's Hygrom.		Winds.		Atmospheric Variations.		
			9 A.M.	M A.T.	M.N.	9 A.M.	10 P.M.	9 A.M.	10 P.M.	9 A.M.	10 P.M.	9 a.m.	2 p.m.	10 p.m.
20			55	66	51	29.67	29.60	90	94	E	ENE	Fair	Fine	Cloudy
21	.57	☾	54	63	50	29.46	29.45	97	98	ESE	ESE	Rain	Cloudy	—
22			51	60	49	29.44	29.46	98	98	ESE	ESE	—	—	—
23			54	63	47	29.47	29.48	92	98	ENE	E	Fair	—	Rain
24	.15		54	68	57	29.35	29.32	98	95	SW	WSW	Cloudy	Rain	Cloudy
25	.20		59	68	53	29.65	29.63	97	95	W	WSW	Fair	Fine	Fine
26			62	69	55	29.57	29.46	95	90	SW	S	—	Rain	Cloudy
27			67	70	52	29.46	29.42	78	86	SSW	SW	—	—	—
28			68	63	57	29.47	29.53	78	92	W	WSW	Cloudy	Fair	—
29	.18	☉	63	70	57	29.56	29.65	80	90	WSW	WSW	Fair	—	Rain
30			65	71	56	29.85	29.82	79	80	WNW	W	—	—	Fair
31			64	69	55	29.71	29.78	79	90	WNW	WNW	—	—	—
June 1			62	69	47	29.91	29.97	79	79	WNW	W	—	Fine	—
2			58	70	53	29.94	29.83	79	79	W	WNW	—	Snow'ry	—
3			60	67	56	29.85	29.76	78	83	NW	W	—	—	Cloudy
4	100	☾	58	68	52	29.39	29.35	94	96	W	W	Rain	Fair	—
5			57	63	53	29.34	29.41	96	88	Wvar.	W	Fair	—	—
6	.0		56	64	51	29.57	29.67	77	78	NW	NW	Fair	—	—
7			58	63	53	29.93	30.01	78	78	NW	NW	Fair	—	Fair
8			57	66	54	30.04	30.06	75	78	NW	NW	—	—	—
9			58	70	55	30.08	30.09	78	78	NW	NNW	—	Fine	—
10			63	69	60	30.12	30.13	78	78	NNW	NNW	—	—	—
11			65	73	61	30.10	30.18	76	77	NNW	NNW	—	—	—
12		●	63	65	56	30.10	30.10	75	75	NNW	SSE	—	Fair	—
13			62	71	54	30.11	30.10	75	75	SSE	SSE	—	Fine	—
14			63	71	56	30.11	30.07	75	78	SE	SSE	—	—	—
15			64	71	61	30.00	29.93	92	92	S var.	SE	Rain	Fair	—
16			67	69	59	29.83	29.79	90	98	SSE	ENE	—	—	—
17			64	73	60	29.41	29.40	84	97	SW	SE	Fair	—	Fine
18			63	70	60	29.30	29.60	96	84	E	W	Rain	Cloudy	—
19			63	72	60	29.80	29.82	92	84	WSW	SW	Cloudy	—	Cloudy

The quantity of Rain fallen in the month of May, was 1 inch and 23.100ths.

## NOTICES.

Communications have been received from Mr. WALLACE, Dr. BURNETT, and Mr. E. S. HALL.

# THE LONDON Medical and Physical Journal.

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NO 354, VOL. LX.]

AUGUST, 1828.

[NO 26, *New Series.*

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For many fortunate discoveries in medicine, and for the detection of numerous errors, the world is indebted to the rapid circulation of Monthly Journals; and there never existed any work, to which the Faculty, in Europe and America, were under deeper obligations, than to the *Medical and Physical Journal of London*, now forming a long, but an invaluable, series.—RUSH.

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## ORIGINAL PAPERS,

AND

CASES OBTAINED FROM PUBLIC INSTITUTIONS AND OTHER  
AUTHENTIC SOURCES.

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### CHANGES OF STRUCTURE.

*Remarks on Changes of Structure in Organised Bodies.*

By JOHN BARON, M.D. F.R.S. &c. &c.

As the pathological investigations in which I have been for many years engaged are again occupying some portion of the attention of medical inquirers, I am desirous, if possible, to remove some misconceptions and prejudices which appear to me to stand in the way, and to impede the progress of knowledge. On that account I have taken the liberty of submitting to you a few remarks, which I trust will receive a place in your valuable Journal.

Nothing, perhaps, has tended more to keep the minds of professional men in a state of doubt and hesitation with regard to the views I have attempted to unfold, than the circumstances under which they are constrained to pursue their examinations concerning changes of structure in the human body. I would, therefore, earnestly solicit them to consider the matters of fact I am about to submit to them. In human pathology, except on very rare occasions, we never witness disorganizations until they have arrived at their last and fatal change. We can seldom examine them at their commencement; can rarely trace their progress; and are compelled, therefore, to draw inferences from appearances which can throw but little light upon the subject. It is my conviction that this is the cause why we have gained so little satisfactory

information regarding the origin and course of morbid changes. It seems equally certain that so long as we confine ourselves to human pathology *alone*, this difficulty must continue. In order to overcome it, I have endeavoured to follow a plan somewhat different from what has generally been adopted. One of the conclusions which has been come to is, that the primary condition of many of the most important alterations of texture is so different from the ultimate one, that it is impossible to draw any just inference as to the former from what may be observed in the latter. I feel quite assured that inattention to those points has caused many statements, that are perfectly well grounded, to be rejected as conjectural or untrue. It is on that account especially to be desired that inquirers in this field should divest themselves of this prejudice, and not refuse to admit descriptions of incipient disorganization, because they do not find them realised when examination is made in the more advanced stages.

It is, nevertheless, certain that, in many disorganizations, particularly those of a compound nature, we find indications by which the different steps in their progress may occasionally be detected: thus, in one part of a viscus we may detect the disorder just beginning to form; in another, it may be somewhat more advanced; and in a third, it shall have proceeded still farther. The same conclusion may often be drawn from examining various organs in the same diseased body. One organ may be a little changed; another may be entirely altered.

Observations of this kind led me to believe it possible to trace these alterations in structure with much accuracy. The most important matter was to ascertain the earliest deviation from the healthy state. This could only be done, in the human subject, in those cases where an individual had been cut off whilst the disorganising process was going on. That point being ascertained, the inferences deducible from the indications just referred to became of much moment. It demonstrated a connexion between things apparently very dissimilar, and gave reason for believing that difference in appearance did not denote so much actual difference in nature as in progress. It is manifest that, from examination of the human body alone, all the steps in this progress could not well be made out. Luckily, in this difficulty, there was a resource to be found in the organic changes of the inferior animals. The analogy between the structure of their bodies and that of man is sufficiently close to permit us to avail ourselves of such information as may be derived from tracing disease in them, in order to elucidate our imperfect observations

in the human subject. To this extent, and no further, did I think it advisable to proceed in such an inquiry. In no instance have I deduced any conclusions from examining the diseases of the inferior animals alone. I have looked upon comparative pathology merely as a help to human pathology; and a most important one it is. The slight and insufficient proofs of the course of disease which the latter affords may often be most happily and satisfactorily sustained by the latter.

I could have wished that these considerations had been borne in mind by those who have animadverted on my opinions. This wish especially applies to a writer in the last Number of the Edinburgh Medical and Surgical Journal. He has, I think, misapprehended my meaning; and, inadvertently I would hope, not accurately represented my sentiments; and, were I to remain silent, it might be inferred that I acquiesced in his representation. With your permission, therefore, I will show wherein I have been misunderstood; and this, chiefly, because truth may thereby be impeded. The objections, moreover, which he has urged, I believe, are from the causes above explained, not uncommon with our brethren; and it is natural and right to remove them.

If I understand the drift of the reviewer's remarks, they lead to these inferences: First, that the facts I have adduced do not apply to the history of pulmonary tubercles in human subjects; that, in short, I have taken for granted the thing to be proved;—and, secondly, as if the whole of the doctrines which I have endeavoured to unfold respecting the origin, progress, and character of a great variety of disorganizations rested upon the same false foundation, the reader is led to believe that assumption, bare unsupported assumption, has been deluding me for the best part of my professional life. I mean briefly to examine these two propositions; and, for various reasons, I shall begin with the last.

Before entering into detail, I claim the privilege of disengaging the pathological question from all the difficulties which have arisen from the ambiguous meanings attached to the word *hydatid*. I foresaw these difficulties in my first work, and I did all in my power to guard against them. Among other expressions, I use the following: "The injudicious adoption of terms is a fertile source of error. It has frequently thrown difficulties in the way, by establishing inaccurate impressions, which, trifling as they may appear, may require a fortunate combination of circumstances and the strongest efforts of the mind to remove. This I conceive in

some degree to have been the case with respect to the word *hydatid*. The etymology of that word, and the ideas which are naturally associated with it, have restricted *its* meaning, and *our* inquiries too; insomuch that we have scarcely even meditated on these bodies in any other character but in that which their name designates. The power of that name seems almost to have prevailed in opposition to the testimony of our senses. For, though the transformations of *hydatids* had been seen going on by different observers,—though the same tumor had been found to contain all the gradations of substances, from the simple watery vesicle up to the scirrhus or cartilaginous texture,—though BOERHAAVE and others had referred distinctly to these transformations,—though Dr. JOHN HUNTER had supposed that they might occur, and Dr. JENNER had proved that they actually did occur, and thereby form tubercles in the lungs,—it is remarkable that such facts have neither influenced the reasonings nor the opinions of professional men.” To show how very important I considered this view of the subject, and how completely I had anticipated the objections, I remarked in a preceding page, that, “admitting, for the sake of argument, that *hydatids* are animalcules, it has, I trust, been shown that it is to the loss of the *hydatidical* character altogether, and the transformations of these bodies, that the morbid appearances in this and many other diseases are to be referred. This is the broad ground upon which I wish to rest my view of the subject. My design has been to prove that such transformations do take place, and occasion a great variety of disorganizations in the animal frame; and I consider that the question, so far as pathology is concerned, has nothing to do with the speculations respecting the origin and vitality of *hydatids*.”\*

I have carried these same principles with me throughout all I have written since; and by them I wish to be judged. Wherever I have spoken of the *hydatid*, my design has been to consider it merely as “a vesicular body with fluid contents” formed in the animal frame, and occasioning, by its growth and transformations, an immense variety of disorganizations. Keeping these facts in mind, I feel no hesitation in affirming that the proofs which I have given of these changes, whether as derived from man or from the inferior animals, cannot be resisted by any who will take pains to acquire accurate information on the subject. The examples which I myself have seen are more than I can number; and,

\* See “*Enquiry*,” pp. 277, 278.



were I to detail all the cases that have been incidentally recorded by my professional brethren, I might multiply the evidence an hundredfold. Look even at the facts stated in my "Enquiry," in the third chapter of the first part. Again, consider what is said in the second chapter of the second part. Turn, moreover, to what I have more recently published in my "Delineations," and a body of evidence will be found which, if I mistake not, must prove irresistible.

I will now direct your attention to pulmonary tubercles, which it is said receives no explanation from any of my researches; and, in fact, that all that I have advanced is a mere gratuitous hypothesis. The reviewer says, moreover, that I nowhere state that I have "traced the transformation from the vesicular or hydatidiform condition to the opaque, firm, and tubercular structure in the tissue of the lungs; and it is only by applying to these organs what he recognises in the liver, that he ascribes to this source the formation of tubercles in the human lungs."\* In reference to this quotation, I might be justified in using strong language, but I will only beg you to do me the justice to consider the following facts: From the very commencement of my inquiries, I have alluded to the difficulties of acquiring any thing like accurate knowledge of the primary or elementary condition of diseased structures in the human body, for this simple reason, that we seldom or never see them till all the original characters are lost. This conviction induced me to write as follows, in page 21 of my "Illustrations:"—"When an individual affected with tubercles happens to be cut off by another disease before the tuberculous affection had run its usual course, we may sometimes be presented in the same lung with examples of all the progressive changes which I have described. Such examples, of course, cannot often occur in the human subject. It has happened to me to meet with several of this description; and I submit the following one to the reader's attentive consideration:

"A boy, about thirteen years of age, who had symptoms of pulmonary disease, was suddenly cut off by an affection of the head, and died on the 10th day of December, 1819. I examined the body on the following day. My principal attention was directed to the state of the thorax, and there I found most interesting illustrations of the descriptions given above. There were accretions nearly of the whole of the right side of the chest, but they were not so firm by any means as they are in the more advanced stage of tubercular disease.

\* See Edinburgh Med. and Surg. Journal, vol. 30, p. 182.

On examining the pleura, particularly towards its upper portion, it was studded with innumerable small bodies, many of them not so large as the head of a pin. They were perfectly transparent, and glistened on the surface of the membrane. On another portion of the pleura pulmonalis, I found a tubercle, pendulous and as large as a pea, with thickened coats, and containing cheesy matter. This body is represented in plate 3d. *The transparent vesicles pervaded the substance of the lungs as well as the membranes; but they did not all remain in this simple or elementary form. They exhibited every gradation in the progress which has been already described.* In their first state, neither lungs nor membrane, where they occurred, were much altered; but the condition of the surrounding lung became changed with that of the tubercles themselves. *Some had lost their transparency, and were of the size of millet-seeds; others were considerably larger, and were of a firm uniform consistence; others were less uniform both in colour and texture; some had discharged their contents, and the empty cysts appeared; others, which were consolidated, had nearly coalesced, and formed a dense, yellowish structure, quite foreign to that of the original pulmonary tissue," &c. &c.*

This statement was illustrated by two plates, No. 2 and 3.

How, with this case, so circumstantially detailed, and so fully illustrated, it could have been averred that I nowhere traced the transformation of the pulmonary tubercle, I am at a loss to conceive.

I must now refer to that other part of the reviewer's statement, that it is only by applying to the lungs what I have recognised in the liver, that I assume and explain the formation of tubercles in the lungs. I am sorry to be obliged to give an unqualified contradiction to this assertion. Besides the above, I have brought forward direct proof from the inferior animals that the commencement and progress of tuberculous diseases in their lungs corresponded with the account which I have given of them in the human subject. The glandered horse affords an example of true pulmonary consumption. My examinations of that disease prove the truth of what I have asserted; and one of the engravings represents the result of one of these examinations. I, moreover, in my "Illustrations," have collected a great number of dissections from the inferior animals, as given by M. DUPUY, which amply confirm my statements. In addition to this, fig. 2 of plate 2d represents the transformations which I have described going on in the lung of a sheep, in whose liver corresponding changes were discovered. The description is most accurate.

"The figure represents a portion of the outer surface of the lung; two incisions having been made into it to show the condition of the deeper-seated changes of structure. In one, four tubercles, which had united together, were divided; and it will be observed that the appearance of the diseased mass, which is thus formed, is quite analogous to one in the cut surface of the liver. The other incision was made through a tubercle of considerable magnitude, the thickened coats of which, with the dark interior, are sufficiently apparent. In the other portions of the figure are seen a considerable number of roundish bodies, of various sizes and textures: some were firm and hard; others were less so, and almost semitransparent; while others were nearly as pellucid as that delineated in the preceding figure."

With these facts before him, and which he has actually referred to, the reviewer repeats his assertion that I have nothing but what pertains to the growth of hydatids of the liver to support my affirmations respecting changes in the lungs. He even a third time returns to this subject, and talks of the hydatids in the livers of the lower animals affording me my only pretext for predicating of tubercles in the lungs, that *their* origin and nature is similar.\* His persevering in this line of argumentation, in defiance of positive proof to the contrary, can only have arisen from a desire to impugn a principle which I think I have established. It was generally believed that the part where the morbid change takes place altogether modifies and determines its nature. Thus, we are told that there is one tubercle for the lungs, another for the liver, &c. &c. A long train of observations led me to believe that this opinion is erroneous; and, though the symptoms and course of tuberculous diseases are materially influenced by the parts where they occur, that their origin is regulated by general laws connected with the essential and fundamental properties of animated beings. The conviction of this truth, which is supported by innumerable arguments, led me to declare that what was true of one organ is, *mutatis mutandis*, equally so of others. But, in making this assertion, I never dreamt of resting it on mere analogical reasoning. It was not brought forward till many dissections, and corresponding knowledge derived from the writings of my brethren, showed the same disorganization existing at the same time in the different organs of the same body. Similar experience led me to another conclusion, namely, that diversity of appear-

\* See page 187 of Review.

ance did not denote diversity of origin in the disorganizations because the appearances vary according to the progress that they have made from their primary condition. I can do no more at present than hint at these things; only further entreating my brethren to examine candidly the proofs by which they are supported.

I see full well that, notwithstanding all I have said, the reviewer, and those who think like him, will still say that my "argument is corrupted by the old fallacy, in the circumstance of regarding the hydatid as susceptible of the changes which I describe." After all that I have adduced, the amount of this objection is, that an hydatid is an hydatid, and can be nothing but an hydatid. Why, sir, the proofs that transparent cysts or vesicles, or hydatids if you will, are transmuted, and ultimately form bodies of a very different description, are so numerous and powerful that I cannot imagine them stronger. I have witnessed this in almost every texture. Dr. Jenner established it by the most convincing evidence; and any one may satisfy himself of the fact by simply repeating the experiments which I have mentioned. But it possibly may still be said that the cysts, or vesicles, delineated by me were not hydatids. Well, be it so. In what manner is the pathological argument affected by the admission? The original state of the disorganization, and its subsequent mutations, are *proved*, and that is sufficient for my purpose.

In bringing these remarks to a conclusion, I would take the liberty of assuring those who have noticed my publications, that I am fully conscious how much the ordinarily-received professional opinions are opposed to my views. I am equally aware of the difficulty of turning the current; of inducing men to abandon long-cherished sentiments, and to adopt new ones,—to avow their errors, renounce their prejudices, and alter their whole mode of thinking and of reasoning. The force of these discouragements every one, who attempts to overthrow commonly received ideas, must experience. But there is something in the investigation of truth so sustaining and invigorating, that it keeps the inquirer steady to his purpose, in spite of all obstacles.

Gloucester; July 7th, 1828.

## YELLOW FEVER.

THE following case was sent to Dr. BURNETT, Medical Commissioner of the Navy, by whom it has been forwarded to us.

*Some Particulars of a Case of Disease, exhibiting Phenomena not very dissimilar to those evinced in the Yellow Fever of the West Indies, or in that which has been called the Bulam Fever.* By J. NIELL, Esq. Surgeon H. M. S. Britannia.

THOMAS EASTLY, ætat. forty-nine, messman to the officers of this ship, a man of a sanguine temperament, of a full plethoric habit of body, of a florid, bloated countenance, fond (I believe) of indulging in the pleasures of the table, was seized with strong rigors, at his own house, on the night of the 8th July, succeeded by general uneasiness and a very restless night. The following morning, he complained of a stiffness and soreness over the whole body, as if he had been severely bruised or beaten; of a violent pain in the back, in the course of the spine and loins; headache. Being anxious to return to his duty on board, in attempting to dress himself, the prostration of strength being so great, he fell down in a state of extreme exhaustion. From an impression that it would be of an ephemeral duration, he permitted the disease to continue without molestation till the forenoon of the 11th, when information was received on board of his illness, and that he was unable to get out of bed.

Mr. CRELLIN, the assistant surgeon, visited him soon afterwards: he found Eastly under considerable febrile excitement; the skin hot; the pulse above 100, full and strong; tongue foul, furred; with constant nausea and vomiting. The patient was immediately bled to syncope, and twenty-eight ounces of blood were abstracted. A cathartic was given, and it operated satisfactorily. At bedtime, Submur. Hydrar. gr. v., Pulv. Antimonial gr. vj. were given in form of pill. The blood did not exhibit any indication of inflammation; it was neither sily nor cupped; but, on the contrary, the crassamentum was rather convex than otherwise in the centre, with very little serum.

12th.—Had a very restless night. Does not complain of any pain except in the right hypochondrium, in the vicinity of the gall-bladder. Pulse 100, full, soft; skin cool; nausea distressing; retching harassing, aggravated perhaps by the antimonial medicine, and indulging in copious draughts of liquids. He was ordered to take Pulv. Antimon. gr. vj., Submur. Hydrarg. gr. v. every four hours; but, in consequence of the gastric irritability, the antimony was omitted, and the calomel continued. Drinking more than a spoonful of liquid at once was prohibited; and a tablespoonful of Aqua Menthæ was ordered to be taken every hour, with a view to tranquilise the stomach. A blister applied to the right hypochondrium at bedtime.

13th.—Had a very restless night. Side easy; nausea not quite  
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so distressing; thirst urgent; pulse 100; skin cool and soft; the skin of the face and neck of a light yellow tinge; countenance full, flushed, and heavy. Complains of a burning sensation at the pit of the stomach, extending up the œsophagus. The peppermint could not be taken, on account of the pain it excited in the passage to the stomach.

A dose of the Infusion of Senna and the Carbonate of Magnesia was ordered, and a blister applied to the epigastrium. Submur. Hydrarg. gr. v. were given at bedtime.

14th.—Had a restless night, but he is free from pain. Nausea still very distressing; vomiting and retching subsided considerably; pulse 100; yellow tinge on the surface is deeper in colour, and extends; the burning sensation at the epigastrium and in the œsophagus is still harassing; singultus; is slightly comatose.

Ext. Colocynth. comp. gr. ij.; Submur. Hydrarg. gr. v. quartis horis. Effervescing draughts.

In the evening, pulse about 100, intermitting; some slight mental aberration.

Omit the Extract of Colocynth, and continue the Calomel gr. v. every two hours. Effervescing draughts. Sherry-wine and brandy ad libitum.

15th.—Had a very restless night. The nausea has been very distressing; vomited thrice in the night, the matter black like the grounds of coffee. The skin of a deep yellow tinge. The burning sensation at the epigastrium, &c. not quite so distressing. Pulse 120, irregularly intermitting. Singultus troublesome; is slightly comatose; bowels open to purging. Took a bottle of sherry and about half a pint of brandy during the last twenty-four hours, and a teaspoonful of Ether occasionally when the singultus was troublesome. It was consolatory for me to find a highly gifted physician, of great experience both in and out of the tropics, who did me the favor of visiting the patient this day, possess similar diagnostic and therapeutic views on this hopeless occasion with myself; when—

Calomel gr. x. and Carbonate of Ammonia gr. iv. in pill were to be exhibited every four hours. Wine, brandy, and Ether to be continued as before.

16th.—Has not had any sleep in the night, but in the morning slept soundly for two hours. He is very easy; the nausea is not so troublesome; the singultus is at times harassing; pulse is not quite so rapid, nor does it intermit so frequently. The yellow tinge on the surface becomes very deep; the face is considerably flushed. The countenance is more animated, and altogether his appearance makes a more favorable impression than hitherto. The bowels are very much relaxed; he has from six to eight evacuations in the twenty-four hours; since the appearance of the black vomit, they (the stools) have likewise been black. The tongue and mouth are covered and lined with a black sordes, parched.

Wine, brandy, Carbonate of Ammonia, Calomel, and Ether, continued as before.

17th.—Has been very easy all night, though he has slept but little. The burning sensation in the stomach and œsophagus has disappeared. Pulse about 110, its intermissions are less frequent. Singultus is still very troublesome; nausea less; the alvine dejections watery, but are much lighter in colour, not unlike the washings of a well incrustated port wine-bottle, floating black flaky substances.

Same treatment continued. Sago and strong beef-tea recommended to be given in small quantities, and repeated often.

18th.—Had a very indifferent night; four hours disturbed sleep towards morning. The mouth sore, the gums swelled; mouth and tongue parched, they cannot be kept moist; pulse 100, regular, full, and expanding; bowels open, the evacuations of a dirty brown, floating flaky membranous substances, which I take to be the villous coat of the intestines; singultus and coma less; ecchymosis in various parts of the body.

Treatment the same as yesterday.

19th.—Had a good night, but slept very little. Pulse 96, full, and rather hard; skin soft and pleasant; the yellow suffusion is still deep; the tongue and mouth are much as before; bowels open, the evacuations liquid, the colour of porter, flaky, but in the last some black fecal matter, of a tolerable consistence, was observed. Singultus less; coma more than usual; some reaction towards evening. Takes soup and sago in pretty large quantities, which he retains.

Brandy and part of the wine discontinued. Calomel, Carbonate of Ammonia, and Ether continued. Soup, sago, and beef-tea, as before.

20th.—Is in every respect the same as yesterday.

A bottle of wine in thirty-six hours. Contin' alia ut heri.

21st.—Had a tranquil night, but does not sleep. Still comatose. The yellow suffusion on the surface is not quite so deep; the mouth and tongue are still parched, covered and lined with black sordes; gums, cheek, and tongue, sore and ulcerated; bowels open, has from six to ten motions in twenty-four hours: they are from a dark green to a black.

Same treatment continued.

22d.—Though he has passed an easy night, yet he has had no sleep. Singultus has been unusually troublesome; yellow suffusion is not quite so dusky, it is of a bright golden yellow; pulse 100, regular, rather strong and hard; mouth and tongue cannot be kept moist; the mouth very sore, much swelled and ulcerated. Urine passed copiously, of a dark porter-like colour; had about six copious evacuations during the night, the last of a thickish consistence, fecal, of a pale ash colour.

Omit Calomel. Wine a pint in the day. Camphor ʒss. in die. Ether when singultus is troublesome.

23d.—Had a better night than usual; two hours sound refreshing sleep. Several evacuations in the night, all copious and fetid, with fecal lumps of a light brown aspect. The mouth very sore

and swelled, but it, with the tongue, is kept moist with greater facility than hitherto; the saliva begins to secrete. Pulse about 96; skin of a brighter yellow; singultus less.

Wine, Camphor, Carbonate of Ammonia, sago, soup, and broth.

24th.—Is easy. Slept soundly about two hours. Singultus less; pulse 100, full, hard, and strong; the evacuations frequent and copious.

Wine omitted, except in sago. Camphor, Carbonate of Ammonia, and Æther continued.

25th.—Had a very good night, but did not sleep more than an hour. Pulse ninety-six, regular, strong, full, and hard; singultus less; tongue and mouth becomes softer and moister; yellow suffusion disappears.

Continue Carb. Ammonia; omit Camphor. Sago, soup as before.

26th.—Had a better night than usual, slept soundly for several hours. No singultus; pulse much as yesterday; mouth and tongue moist.

Omit all medicine. Continue sago, soup, &c.

27th.—Had an indifferent night; was hot, feverish, and restless, which he ascribed to the sultriness of the weather. Pulse ninety, full and strong; skin cool and soft; bowels open; the evacuations of a dark bilious hue; free from singultus; the adnata and skin become of a much brighter colour; ptyalism begins to flow; mouth very sore, much swelled.

Sago, beef-tea, chicken or mutton broth.

28th.—Passed a very good night, though the mouth is very sore. The face is much swelled; ptyalism copious. The mercurial fetor is now offensive. Pulse 100, full and strong; bowels open to purging; has no appetite, but takes sago, beef-tea, and mutton-broth plentifully.

29th.—Is much as yesterday. The pulse is rather more frequent. The skin, towards evening, becomes of late hot, and has a slight accession of fever, which I ascribe to the mercurial action. The ptyalism profuse; bowels open, the evacuations generally are feculent. Appetite improves.

30th.—Though the face and mouth are much swelled, yet still his nights are tolerable; ptyalism profuse; pulse much the same; skin soft and pleasant; yellow suffusion disappears; the appetite improves.

Beef-tea, chicken or mutton broth, in which the crumb of bread is sopped.

31st.—It will, I presume, be superfluous to trespass this narrative on your time, now the patient is fairly convalescent. Medicine was not given after this period, except small doses of Sulphas Quininæ, which had a good effect in improving the tone of the stomach, and increasing the appetite. It was long before the mouth got well, from the mercury having caused extensive inflammation, and ulceration of the tongue, ~~cheek~~, and gums.



October 19th.—The strength increases very slowly; the mouth is not yet quite well. The appetite is good, and the bowels are regular; but he suffers from indigestion whenever he commits the least error in diet, and on such occasions he experiences considerable distention and uneasiness of stomach.

In offering to occupy your time with any remarks on this narrative, already too prolix, I must claim the singularity of the case as my best apology.

I may be permitted to observe that, had this case occurred in any of the West Indian Islands, no medical man would have been hardy enough to have pronounced it any thing but a genuine case of Typhus Icterodes, Bulam, or Yellow Fever. In the present instance, there need be no difficulty in admitting this; for the heat and drought had lately been so intense and continued as to give the season a claim to an intertropical character. Under such circumstances, therefore, when fever, marked by a peculiar train of symptoms, occurs in a person of a sanguine temperament, of a gross habit of body, of a bloated countenance, fond of indulging in every comfort his situation could afford, using fatiguing exercise at times in the solar rays, our surprise need not be excited at disease assuming this peculiar type. Fevers of the remittent type, and some bad cases of cholera, were not uncommon in private practice and on shipboard: therefore, under the peculiarities of Eastly's constitution, habits, and occupations, our surprise may vanish when these things are taken into consideration.

It is not the object of the present moment to enter into the various attributes or properties of what is vulgarly called yellow fever. I conceive it will be only necessary for me to endeavour to establish an identity between this and those cases of daily occurrence in the West Indies. It will therefore be requisite to direct the attention to the invasion, progress, and decline of the complaint; and this case will exhibit a train of phenomena and consequences parallel to those in the western endemic. The strong rigors, the great prostration of strength, the deep-seated muscular pains and headache, though common to the first stage of all fevers, proclaim by their severity here a complaint of some peculiar malignity. The second stage comes on with considerable reaction, distressing nausea, vomiting, and retching, which in these fevers are generally conspicuous; and they are soon succeeded by a yellowness of the surface, and an uneasy burning sensation at the epigastrium, extending along the track of the œsophagus. These are invariably present in all intertropical fevers of a malignant type. Consecutively,

black vomit appears at no remote period, and this is generally the harbinger of a fatal termination. I have heard, and it is authentically recorded, that patients have recovered from yellow fever in the West Indies after this symptom has appeared; but, in many cases which it has been my lot to see, I have not known a single instance of recovery after this phenomenon. I have been a witness to many cases where the patient had survived this symptom from three to seven days, and in these the alvine secretions bore a strong resemblance to what is noted in the above case. In the few instances recorded of recovery after this symptom had appeared, we observe it has been always marked by changes in the alvine secretions similar to those exhibited in the present case, from a jet black to a dark brown, then gradually becoming lighter as the natural actions and secretions in the intestines were restored. Without any bias or reference to doctrinal points of discussion which have long agitated the medical world with regard to certain properties yellow fever is said to possess, I trust a series of symptoms in this case are detailed impartially,—symptoms which, under similar circumstances, are exhibited in the various stages of the West Indian endemic,—in order to prove an identity. If, on the present occasion, this be admitted, it will prove that this disease is the legitimate offspring of any latitude under certain modifications of season and temperature; and it may likewise disarm us of any fears which we may entertain of its possessing any virulently contagious properties. This has, however, nothing to do with the present subject: the object is to establish, by phenomena exhibited in this case, its identity with the fever which is the terror of Europeans proceeding to our West Indian possessions.

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#### ARTIFICIAL ANUS.

*Case of Artificial Anus, arising from Ulceration of the Transverse Arch of the Colon; which, after discharging Feces for eighty-one days, spontaneously closed.* By EDWARD SWARBRECK HALL, Member of the Royal College of Surgeons, London; Surgeon to the South Dispensary, Liverpool.

THE subject of this case was an active, volatile girl, eleven years old. My attendance upon her commenced on the 13th October, 1827. She had then been ill six days. Her indisposition came on with pains in the belly, vomiting, loss of appetite, thirst, and fever. At the time of my visit, she was suffering from the usual symptoms of peritonitis: diffused pain over the abdomen, increased upon pressure; moist, furred tongue; dry skin; pulse 120, and weak. She was also considerably emaciated. The application of

a few leeches, together with fomentations and a little diaphoretic medicine, relieved her very much. Two days afterwards, the symptoms recurred with additional violence, but were easily subdued by a small general bleeding, a blister over the abdomen, and small doses of Tincture of Colchicum with sweet Spirits of Nitre. On the 19th instant, I ceased attending my patient, as she was well nigh recovered, and her parents were afraid of incurring much expense.

On the 29th instant, I was again sent for. I found ascites had taken place; some pain of the belly had returned, with palpitation of the heart, and a pulse up to 140, but unresisting. Local blood-letting was again resorted to, and the Tinctures of Colchicum and Digitalis, in small doses gradually increased, prescribed. By the 12th of November, the dropsical symptoms had all disappeared. For some days antecedent to that date, the bowels had not performed their functions with regularity, which I attributed at that time to their having been the outlet by which the greater part of the dropsical effusion had been carried off; neither the kidneys nor skin acting with more than their usual energy. At times, even after the dropsy of the belly was dissipated, the dejections were so numerous that my patient was unable to rest at night. They were exceedingly offensive, of a whitish colour, and sometimes had very much the appearance of yeast. I have now little doubt that the mucous glands of the intestines were diseased; and probably the enlargement of the mesenteric glands, which was subsequently developed, arose from that source. The pulse was never below 120 for three months, and the tongue was more or less furred for the same period.

At this time (12th November,) I commenced the use of small doses of bluepill, which was persisted in until my patient became convalescent; sometimes combining it with narcotics, and at others with gentle purgatives, such as rhubarb. In fact, my treatment throughout this complaint was entirely on the principles of one of my much respected teachers, Mr. ABERNETHY, a gentleman who will ever be remembered with gratitude and respect by those who have had the honour of being his pupils. "You have no right to dictate to nature," he would say: "soothe irritation, aid her in her efforts, but do not attempt to control her."

On the 30th of November, my attention was directed to a red, prominent, and painful swelling, of about the size of a pigeon's egg, immediately below the umbilicus. It resembled a furuncle in some measure, wanting, however, the characteristic hardness of a swelling of that nature, and having rather an elastic feel, as if distended with air. The whole belly likewise was somewhat tumid and elastic; the legs were slightly cedematous, the pulse considerably accelerated, and thirst very much complained of. I ordered the tumor to be poulticed, and two tablespoonfuls of a saline julep to be taken every two hours.

At my next visit, the tumor presented a very singular appear-

ance: the superincumbent cuticle was raised from the cutis, like a blister, but was quite elastic, and evidently distended with air. I made a very small puncture in it with my lancet: a pretty smart report followed, and very fetid air, having the odour of the gas usually discharged per anum, escaped. After this had ceased to issue, a small quantity of fecal matter exuded from the aperture. From the appearance of the fecal matter, odour of the liberated gas, and situation of the opening, I had no doubt it communicated with the transverse arch of the colon. It is most probable that, during the early part of the complaint, the colon was united to the parietes of the abdomen by adhesive inflammation, and that then ulceration commenced in one of the diseased mucous glands, and gradually extended through the coats of the intestine and walls of the abdomen. Indeed, I remember that at one time, during the existence of the diffused pain over the abdomen, she complained of it being more severe in the neighbourhood of the umbilicus than any where else, which induced me to examine that region very attentively; but I did not discover any hardness or tumefaction on that occasion. At a later inspection (13th January) I could trace very distinctly an irregular induration in that situation, which I believed to be in the meso-colon.

Next day (December 2d,) I found my patient something easier: her pulse was less furred, pulse not so rapid, and thirst abated. She had passed several evacuations per anum since my last visit. Upon removing the dressings from the belly, gas again escaped. I found the cuticle which had been raised entirely detached, and beneath it in the cutis two points of ulceration, not exceeding the magnitude of pins' heads: feces slowly issued through them.

From this time until the artificial anus got well, poultices were applied every two hours. Various tonics were prescribed during the further progress of the disease, particularly Sulphate of Quinine; at the same time continuing the use of the bluepill. Generous diet was allowed her, and wine, ale, and porter freely administered. Of course, particular symptoms were prescribed for as they arose.

It would swell my communication too much to relate the daily changes that took place from this time forwards: suffice it to give a condensation of the most important ones.—The apertures in the abdomen slowly enlarged as the disease advanced, until they would admit a moderate-sized goosequill, but never extended beyond that magnitude. The surrounding integuments always preserved a healthy aspect. The discharge from the artificial anus varied exceedingly: sometimes none would take place for several days, and at others it would be very profuse, probably a quart or more in twenty-four hours. Its consistence, odour, and appearance, were also subject to variation: on one occasion, when my little patient was so bad that I apprehended her almost immediate dissolution, the smell was distinctly gangrenous; at other times it had a musty, disagreeable odour; but the highly feculent smell

was most prevalent. She was frequently troubled with colicky pains, but never to any great extent, and generally previous to a dejection per anum. The anal evacuations were as mutable as those from the artificial openings, and pretty generally in an inverse ratio: that is, when the one was profuse and watery, the other would be trifling and consistent. The pulse sometimes rose as high as 160 beats in a minute, but was always weak and unresisting; and, as I have before stated, was never below 120, until the 30th January, at which time some amendment of my patient's health began to take place. The anasarca of the extremities became so great, that I was afraid the integuments would have sloughed; and it was not until her recovery was considerably advanced that it began to diminish. She was often affected with hysterical symptoms, inability to retain the urine, cough, and difficulty of deglutition. For several days, she was reduced to such an excessive state of debility that she could not articulate or move herself in bed. Her appetite was at all times exceedingly capricious, being at one period voracious, at another she subsisted for days together merely on fluids. She was likewise very often subject to vomiting, and for many days nothing would remain on her stomach but a little cold ale.

On the 30th January, a decided amelioration of her symptoms took place, and from that date she continued to improve. On the 13th February she was able to leave her bed, to which she had been confined for the protracted period of three months. The artificial anus ceased discharging on the 19th of the same month, and in eight days no aperture whatever could be detected; a puckered depression, that would admit the point of the finger, existing in its site. Her appetite had lost its fickle character, and any kind of food agreed with her. The bowels had completely resumed their healthy functions, and the evacuations were perfectly natural. Up to the present time she has remained quite well, with the exception of occasional slight pains in the belly. Her abdomen is still rather protuberant, and irregular indurations, as if of enlarged mesenteric glands, can be detected. Should she not have a daily evacuation from the bowels, which she commonly has, she feels some uneasiness, and the site of the artificial anus, instead of being depressed, becomes pouting.

Ulceration of the walls of the intestines, followed by the effusion of their contents into the cavity of the abdomen, and thereby destroying the patient, is not an uncommon consequence of disease in the mucous membrane of the bowels: but I am not aware that a case similar to that which I have related has ever been recorded. There are two cases in Mr. HOWSHIP'S work on the Intestines which bear some relation to it, but they are by no means parallel.

*Liverpool; June 18th, 1828.*

## HERNIA.

*On the Use of Tobacco in Hernia, &c.* By JAMES WALLACE,  
Assistant Surgeon, R.N.

ALONG with the taxis, there are three great remedies which we have recourse to in strangulated hernia, before we have recourse to the operation. These are blood-letting, the warm bath, and tobacco; and all these tend towards the same end, namely, the production of syncope, or a state nearly approaching to it, by which, when we have the muscular power completely relaxed, we are enabled often to reduce the hernia without any difficulty. Each of the remedies has been found efficient, and, in the general, it is perhaps immaterial which of them we choose to gain our end by, provided that we do gain our end. However, it is necessary sometimes to make a choice, and occasionally, even amid them all, we are rather at a loss what to do. For example, in a debilitated patient, we should be loathe to take away blood, and would rather in this case have recourse to the bath. The bath, however, is not always to be had, or it is not to be had conveniently, or, when it is had, it may fail in its effect, and then of course we are thrown upon the tobacco. But the tobacco, although acknowledged to be a powerful remedy, is, in the way in which it is generally administered, rather an unmanageable one; and, as its use has occasionally been followed by alarming and even fatal consequences, it is dreaded by many, and has of late fallen much into disrepute. We are in the habit of throwing it into the rectum, either in a state of vapour or solution; and, if we throw in too much (and, unfortunately, we can never properly regulate the quantity,) dreadful sickness, and even death itself, may ensue; and, if we throw in too little, no effect will be produced. Therefore, it has been condemned by many as a remedy hardly admitting of use, and they tell us to try all other methods before this; for it would seem that the good which it may occasionally do is more than counterbalanced by the evil.

Now, it has occurred to me that we might use the tobacco in a much simpler and easier way, by which we might get the full benefit of its efficacy, while we should run no risk of working mischief with it: that, merely by changing the mode of its administration, instead of being a dernier resort, we might make it a first and general remedy. The plan I propose is—to give it by the mouth instead of the rectum; in plain words, to give the patient a pipe, and make him smoke, as if he were smoking for enjoyment, until he became thoroughly sick. Thus we could manage it exactly as we wished. We

could make him perfectly sick, and relax his system completely, without being the least in danger of carrying the relaxing process too far, while we should save the time which is occupied in preparing the vapour or solution, and the trouble which is experienced in giving them. In ten or fifteen minutes, or less, the full effect would be produced, and then we might set to the taxis again with some hopes of success. I venture, therefore, to suggest, in cases of strangulated hernia, where bleeding is contra-indicated, and where the warm bath cannot readily be had, or where these two remedies, although tried, have failed to produce the effect required (which will sometimes happen), that we have recourse to the tobacco in this way. It is certain that bloodletting, in all cases where it is admissible, is the best measure which we can put in practice: first, because not only may it produce the effect which we are anxious to obtain for the reduction of the hernia, namely the syncope, but, in plethoric habits, it may greatly lessen the risk of after-inflammation. And, perhaps, next to bloodletting, we might in general make trial of the bath, if the bath can be got at once, and of the proper temperature. But if there is to be the least difficulty in getting it, so that we are to be in danger of losing time, or if we are likely to get it so inconveniently as not to give it a fair chance for its effect, then I think we had better let it alone: by giving the patient the tobacco, probably in less time than would have been occupied in preparing the bath, we might have him sickened, and his hernia returned. I am not an advocate for waiting long in the trial of any remedy for the reduction of hernia, for I conceive that the majority of patients are lost by unduly delaying the operation. If we do not succeed after a few trials,—after the trials of perhaps two or three hours, (symptoms being urgent,) I am quite sure that the sooner we perform the operation the better. But we always can, and we always should, if we see the patient soon after the occurrence of the complaint, while the parts are yet to be handled without giving pain, and there seems to be no immediate risk of dangerous inflammation, put in practice some of the means which have been mentioned; and, of course, that measure which is most convenient, and at the same time efficacious, will be chosen at once by the prudent practitioner.

It may be said that this remedy will not suit in many instances; that to those who are in the habit of using tobacco, it will be of no value. This is quite true. To the professed smoker, the remedy cannot be applied: but professed smokers will always be few in comparison with the mass of society,

and therefore, in the greater number of cases, at any rate, this remedy will be applicable. Young people do not in general smoke; neither do females; only a few men smoke; so we may safely say that, in ten hernial cases, we shall not meet with more than one smoker. But, even allowing that we had to calculate in the contrary way,—allowing that out of ten cases we had nine persons that smoked, and only one that did not, still the tobacco would have its value. One life saved even out of a thousand is valuable; and a remedy which will cure or give relief even in an occasional case, should not be lost sight of.

Even on the score of delicacy there is a great point gained, if the plan which I now propose be found to answer. In desperate cases, I would not have any one stand about means, moreover, even an indelicate measure, when properly proposed and rightly gone about, becomes very different from what, at first thought, it was deemed. Nevertheless, in young females especially, there must always be a reluctance to the use of the tobacco in the common way; and therefore, if we can introduce it with equal, or even more, facility and success by the mouth, surely that method ought to be adopted in preference.

I have further to observe, that I think the remedy might be found useful in some other complaints. In dislocations, for instance, in robust people, where great extension is required to overcome the action of the muscles, and where, even with all our extension, we shall sometimes be foiled, would it not be advantageous to make trial of this plan? In dislocation of the hip-joint, which is so extremely difficult to reduce, would the remedy not be likely to give great help? Bloodletting, and the warm bath also, have often been used as auxiliaries in these cases; but would not this be, upon the whole, a better remedy? We do not, in cases of simple dislocation, require, in general, to bleed the patient from the fear of inflammatory action supervening, but merely for the purpose of rendering him faint at the time; and, if we can produce this faintness by simple smoking, it will surely be better than by bleeding. We are to bleed, certainly, where it is necessary, but we are to spare bleeding also wherever we can; and if the pipe will do at any time for the lancet, we ought to substitute it. And as the warm bath, in cases of dislocation as in cases of hernia, may sometimes not be easily got, and when got may not be of much use, it may be necessary to substitute the pipe for it also. Tartrate of antimony is frequently given to answer the same purpose, and has often a very good effect; but it may happen that we may be in a situation where we



have neither a lancet nor a bath, nor tartrate of antimony, at hand, and it is well to know that we can have recourse to the simple plan of smoking, with some hope of doing good. If we can muster a pipe and a piece of tobacco, or a cigar, we may perhaps be able to do our work without loss of time, and without the help of other remedies.

Might the remedy not be of use in some other spasmodic and inflammatory diseases, especially when conjoined with other means. For example, in colic, and in obstinate constipation occurring from spasm, as in the colica pictonum,—in spasm of the biliary ducts, producing obstruction of bile,—in spasm of the ureter, or urethra, producing retention of urine and such diseases, might it not deserve a trial? At any rate it appears to me to be a thing worthy of remembrance, and perhaps in the hour of difficulty we may be glad to have recourse to it when other means fail.

Portsmouth; May 30th, 1828.

#### PIPERINE.

*Observations on Piperine, with the Formula for its Preparation, &c.*  
By GEORGE W. CARPENTER, of Philadelphia.\*

THE object of the present communication is to describe a new principle, recently discovered in black pepper, which has been denominated Piperine, and which has been proved, by careful experiment, to be an active remedy in intermittent fevers, and has been employed with much advantage also in typhous fever and periodical headache, and, from the testimonials given in its support, seems to bid fair to become an important addition to the materia medica. It may be employed in doses of from one to four grains; it has been given in several cases of intermittent fevers in doses of one grain, and was attended with as much success as the quinine. It is found to be a valuable adjunct to that substance, equal parts of each acting with more energy and success than the whole quantity of quinine.

Black pepper, in its crude state, has long been known as a valuable medicine, and is stated to be an excellent adjunct to bark in intermittents; and Mr. RENNIE† observes, that Mr. BRANDE must certainly be mistaken when he says it acts only as a warm condiment, agreeable to the stomach.

It is mentioned in Dr. COXE's valuable Dispensatory, under the article Piper, that Dr. FRANK, physician to her

\* Condensed from the American Journal of Medical Sciences.

† See his Supplement to the Pharmacopœias of London, Edinburgh, Dublin, and Paris.

Majesty Maria Louisa, recommends the black pepper in different species of intermittent fevers. This had previously been used in the East with success, after every known means had been ineffectually tried. The dose is five to ten grains twice a day, and Dr. GHIGINI reports ten cases cured with it. Dr. Frank mentions seventy patients who came under his notice between April and June, of whom fifty-two had tertian, ten quotidian, and eight the quartan fever. Fifty-four were completely cured within about a week, without any subsequent relapse. He dips the seeds of the black pepper in a mucilage of gum Arabic, and subsequently in powdered colomba, to disguise it, and gives from five to eight pills twice a day. None of his patients required more than from seventy to eighty pills for a complete cure. Dr. Frank recommends the profession to try the extract of black pepper in intermittent fevers. This preparation was tried on nine individuals affected with intermittent fevers of various types, in doses of four, eight, ten, or twelve grains, dissolved in water in some cases, and given in the form of pills in others, by Dr. CLOCK, of Trent; and the effects surpassed his warmest expectations.

From these experiments it is concluded, that the extract of pepper is not only one of the best succedaneums for the bark, but that it is even preferable to it on several accounts: 1st. It never produces disturbance in the stomach or bowels; 2d, it never failed in producing a cure; 3d, those who were cured did not in any one instance experience a relapse; 4th, it produces a regular alvine discharge, as well as the excretion of urine and sweat; 5th, none of those who were cured experienced that sensation of languor, so common to a state of convalescence.\*

In the Bulletin des Sciences Medicales for April 1826, there is an account of three cases treated with piperine, by Dr. S. GORDONI, physician to the hospital at Leghorn. The first case was one of double tertian intermittent fever, which for a long time resisted the use of quinine, and, although this remedy eventually arrested the paroxysms, whenever it was discontinued the disease returned: the piperine was then resorted to, and the fever ceased on the first day, and did not return. The second and third were also cases of intermittent fever: they were promptly cured by the piperine. From these and many other cases, Dr. Gordoni infers that the piperine will cure fevers that resist the sulphate of quinine, and that it will prevent a relapse better than this latter remedy.

\* Giornale de Chirurgia Practica.

Dr. MELI has also employed the piperine with success, and considers it a more certain remedy in intermittent fever than the sulphate of quinine.\*

Dr. J. S. ROSE, who was the first to use the piperine in this city, informs me that he has employed the piperine which I prepared in twenty cases of intermittent and remittent fevers, and that he is decidedly of opinion that it will be found to be a more certain and efficient remedy than any preparation of bark heretofore used.

"I have also used it (he adds,) in two cases of low nervous fever, or typhus. I was induced to employ it in these cases, from observing that in intermittent it did not prevent all the stages of the paroxysm. At the time the patient expected his chill, he found a gentle diaphoresis, which continued to increase for two, three, and in some cases for four hours: on the next day, however, of the expected return, there was nothing like diaphoresis or fever. The patient passed this period without the least inconvenience, and remained exempt from a relapse, which is not always the case after the use of quinine. These facts led me to believe that in typhus, when we wish a stimulating diaphoretic, no remedy is preferable for that purpose to the piperine, not even volatile alkali. In this form of febrile action, when the animal powers are about to yield to the influence of disease, and the patient fall a victim to the timidity of the practitioner, I have boldly withheld all other remedies, and administered the piperine in doses of two grains every two hours, until eight grains had been taken: the low muttering delirium now began to subside, the skin became moist, and the patient, sensible of his improvement, expressed himself better. On the following day the same doses were administered, and repeated for three, four, or five days, when I found no fever, the strength increased, and the patient with an inclination for food, and convalescent."

The piperine has been also used by Dr. J. C. ROUSSEAU, of this city, in a few cases, in all of which it has been successful. He has favored me with the following cases, which are interesting, as it shews the necessity of caution in prescribing the remedy in large doses.

"A young girl, about twelve years of age, having had a return of an intermittent fever that had been stopped by the sulphate of quinine, was directed to take one grain of the piperine, made into a pill with conserve of roses. She was a short time after seized with a vomiting, which was repeated to the number of seven times in the space of two hours. It then began to promote alvine evacuations to the extent of twelve or fifteen times. The fever did not return, and she was directed to continue one grain of the me-

\* Ainslie's *Materia Indica*, vol. ii. p. 622.

dicine night and morning. It invariably produced alvine discharges in an unusual quantity.

"In another case, a subject of about forty, it produced a radical cure, in the dose of three grains, in twenty-four hours, continued for several days after. And it is so much the more remarkable, as this patient had taken the sulphate of quinine for some days, in the quantity of thirty grains every twenty-four hours, as he informed me; remarking at the same time, that, during the use of it, he was under a most violent and painful state of excitement."

I have just received the following case from my friend, Dr. J. R. BLACK, of Philadelphia: it affords additional testimony of the powers of the piperine in the cure of intermittent fever.

"Mr. S., aged about forty years, during the first part of last month applied with a severe quotidian fever, attended with rejections from the stomach, and with violent pain and great determination of blood to the head during the hot stage, with cold feet and slight delirium.

"The case was treated with the lancet, emetics, and purges, which, on the third day, changed its type to the tertian. On the day of intermission, sulphate of quinine was administered, which was often rejected, while it always increased the patient's nausea and headache. Piperine (prepared by Mr. Carpenter,) was substituted in doses of one grain every hour, to the number of ten a day. The paroxysms immediately ceased, and the patient in a few days was discharged radically cured."

Many other cases might be quoted, in which this medicine has been employed with equally happy results, but enough has been advanced to satisfy the most sceptical of its active properties.

Alcohol and sulphuric æther are the best menstrua for the active properties of the pepper, which very soon imparts its acrimony to these fluids. Mr. BRANDE gives alcohol and water. I am surprised he should have omitted æther, since it is the most powerful solvent; and particularly that he should quote water, as it requires 550 pints to extract the sapidity of one pound of pepper. Water, indeed, appears to rank lowest as a solvent of the active part of the pepper, while it is the best solvent of the colouring matter; for, after the pepper has been exhausted of its sapidity by æther and alcohol, water will make a deep-coloured solution, which, on evaporation, will produce a dark extract, possessing little of the pungency of the pepper.

The piperine employed in the above cases I prepared according to the following formula:

Digest one pound of coarsely powdered black pepper in one gallon of alcohol for ten days; distil off one-half of the alcohol in a water bath; add by degrees diluted muriatic acid, to hold in solution the piperine; then add water sufficient to precipitate the resin and separate the oil, a muriate of piperine remaining in solution; concentrate this solution by evaporation, and add pure potass to decompose it, and neutralise the acid; when the piperine, in consequence of the diluted state of the alcohol, and the absence of the muriatic acid, will be deposited in yellowish transparent crystals. The crystals may be obtained perfectly colourless, by carefully separating the oil and resin; but, as there is no disadvantage in the colour, the additional trouble and expense would not be compensated. The piperine in a colourless state is insipid and inodorous, but, united with as much resin as enters into its crystallization, its taste is extremely hot, possessing in an intense degree all the pungency of the pepper, with a considerable portion of its odour, and I think is more active than the former. It was in this form exhibited in the treatment of the cases above described.

The crystals were perfectly transparent, tetrahedral prisms, with oblique summits of a straw colour, and as large as the ordinary crystals of sulphate of magnesia.

*Extract of Black Pepper.*—Digest eight ounces of black pepper, coarsely ground, in four pints of diluted alcohol for four days, occasionally submitting it to a temperature near ebullition in a water bath; filter and evaporate to the consistence of an extract.

This is found also to be an active remedy in intermittents, in doses of two or three grains. In a soft state it has proved very convenient to give consistency to piperine and quinine for the form of pills, while at the same time it increases their activity, particularly that of the latter. It is certainly preferable to conserve of roses or gum Arabic, as they enlarge the pill without increasing its effect.

The extract of pepper, in every formula I have seen, has been directed to be prepared with water. This forms a much less active preparation, and possesses several inconveniences, to which the former is not subject.

I have used both the white and black peppers in the above preparation, and although it is stated by most authors that the white is milder than the black, I have found it to yield more piperine, and an extract of much more acrimony and activity, and to contain much less colouring matter.

The constituent principles of pepper are piperine, oil, resin, fœcula, and colouring matter.

The oil of black pepper is a most powerful article, and has not as yet been employed in medicine: it may prove a valuable stimulant.

#### COLD WATER.

*Cases illustrative of the Curative Effects of copious and long-continued Affusions of Cold Water in external Inflammations.* By L. S. TILLET, M.D. of Lancaster, Pennsylvania.\*

IN the early part of his life, Dr. — had been afflicted with a white swelling of the knee-joint, from which he had the good fortune to escape with an ankylosis; which, while it occasioned him some little inconvenience, in no degree incapacitated him for a faithful discharge of his professional duties, during a period of more than twenty years. In descending the steps of his house, some time since, he unfortunately slipped, and the heel of the ankylosed limb meeting with the projecting point of a stone, which was firmly fixed in the earth, a fracture took place at the knee-joint, and the leg was doubled beneath him. With the assistance of a friend, the parts were replaced as nearly as possible in their original situation; and, having been removed into the house, medical assistance was immediately procured: it was to little purpose, however, as, notwithstanding the excruciating pain which he suffered, he had already determined on the treatment to be pursued. Convinced, by long experience, of the utility of cold applications in cases of this nature, he resolved to confide his life to them alone; and, throughout his whole confinement, pertinaciously refused to submit to venesection, or to take purgative medicine in sufficient quantity to do more than maintain the regular peristaltic action of the intestines. Indeed, his great size, and the exquisite pain attendant upon the least motion, limited his friends to the exhibition of mild laxatives only. By this time the knee had become much swollen, and it was evident that whatever plan was adopted must be vigorously pursued. The leg was extended upon a pillow, no dressings of any kind applied, and the coldest water that could be procured was poured upon the naked limb, at first almost constantly, and afterwards, as the inflammation subsided, in quantity of a pint every five and ten minutes, for three weeks. At the expiration of this period, having been removed to a dry bed, and almost exhausted by the continued state of submersion in which he had been for so long a time, he resolved to try the effect of cloths moderately wet with a solution of the acetate of lead,

\* Condensed from the North American Med. and Surg. Journal.

&c. In less than three hours, a most marked difference had taken place in the state of the limb: the inflammation had greatly increased; the pain had become almost insupportable, shooting upwards to the body, and downwards to the foot. A vesicle, five lines in diameter, containing a yellowish serum, made its appearance on the superior part of the joint; and every symptom, in short, bore evidence of the impending danger. No time was to be lost: cold water was instantly had recourse to, in quantity as great as in the first instance, and with the same salutary consequences. The inflammation again subsided, with a consequent diminution of pain; the vesicle became shrivelled, from an absorption of its contents, and ultimately disappeared altogether. A continuance of this plan, proportioned to the degree of inflammation, for three weeks longer, effected a complete cure; and, in eight weeks from the occurrence of the accident, he was able to walk with the assistance of crutches.

A more unequivocal proof of the powerful agency of cold water than this case affords, cannot be desired. The patient was extremely corpulent, weighing upwards of three hundred pounds. The inflammatory action ran so high, that the water would rise from the limb in vapour. The accident occurred in the month of August; and, with the exception of a very abstemious diet, there was no other remedy employed. It may be said, perhaps, that general and local depletion, vigorously pursued, would have been attended with a like beneficial result; but to the former the prejudices of the patient opposed an insuperable objection; and besides that, in the country, and at a distance from any considerable town, (as was the case in this instance,) leeches cannot always be procured, there is great reason to think that they would have been totally inadequate to subdue the violent inflammation which existed here, and which, upon a mere relaxation of the treatment at the expiration of three weeks, threatened the life of the patient.

Another instance, in which the same remedy was successfully employed, communicated to me by the gentleman whose case I have just related, is little less remarkable, inasmuch as it is a case for which, not many years ago, amputation would have been deemed necessary.

A woman, jumping out of a waggon, the horses of which were unruly, dislocated the tibia at the ankle; the bone protruded through the integuments, and penetrated the earth to some distance. The dislocation was reduced by a surgeon who happened to be near at the time; and the day following,

the woman having been conveyed to her house, Dr. — was sent for. He found the leg much swollen and inflamed, and the patient in great agony. Cold water was instantly applied, and with the most salutary consequences. In five weeks the patient was able to walk about the house; though, from the nature of the injury, the joint was affected for some time after with a considerable degree of stiffness.

I could adduce many instances of compound fractures, in which the free employment of this remedy was attended with a like happy result. Among others, one which occurred in my own practice, in which both the bones of the leg were fractured, and the integuments much lacerated, the patient being at the time in a state of inebriety. The inflammation was restrained within due limits, and although, from the injury done to the integuments, union by the first intention did not take place, the cure progressed without a single unpleasant symptom.

But enough has surely been said to prove that cold, *properly* applied, is possessed of much higher remedial power than has hitherto been attributed to it. I say *properly*, because the usual manner in which it is employed, by means of cloths wet with a solution of acetate of lead and other substances, removed as often as they become dry by evaporation, is productive of comparatively little advantage: it may be useful in mild cases, but in the more violent grades of inflammation, must be altogether nugatory. Here a more vigorous treatment is demanded: the coldest spring or well water should be procured, or, if necessary, it may be cooled artificially, and the limb be kept constantly bathed in it, until the morbid excitement be reduced; and this, I hesitate not to say, in a constitution otherwise healthy, will be the almost necessary consequence of the employment of cold water to the extent I have recommended.

I wish to speak the more earnestly on this subject, because I think I have observed, in country practice more especially, many unpleasant consequences to follow from a want of correct ideas in relation to the remedy, which it is the object of this paper to introduce more particularly to the notice of the profession. In the country, as I have before stated, leeches cannot always be had; the application of the scarificator may be frequently inconvenient, and sometimes impossible; and general depletion, unassisted by local treatment, will often prove ineffectual; while in cold water we have a remedy abundantly found throughout the whole of our widely extended country, and possessed of virtues which



should long ago have attracted to it much more attention than it has hitherto received. In our cities, also, I am convinced, its employment might be very beneficially extended.

Gangrene, consequent upon violent inflammation, though by no means of such frequent occurrence as formerly, is still met with sufficiently often to call forth all our exertions for its prevention; and I am acquainted with no remedy better calculated to produce such an effect than the one which I have recommended. The present treatment of such cases appears to me to be particularly faulty. A patient, for example, is brought into one of our hospitals with a large lacerated wound of one of the extremities: the surgeon immediately perceives that union by the first intention is, in many cases, impracticable, and that suppuration is the next most desirable termination: to promote which a warm poultice of bread and milk, or some other emollient substances, is immediately applied. It is true that, if the inflammation transcend, as is almost always the case, the degree requisite for the formation of pus, leeches are directed, and the antiphlogistic plan generally is adopted; but in some instances this change of treatment is not made until the inflammation has attained a height which admits of no control, and in others it would have proved inadequate from the commencement; and, even when successful, it is attended with unnecessary loss of time and confinement of the patient. In all such cases, I am fully convinced that the free application of cold water would tend more effectually than any thing else to control inflammatory action, and accelerate the cure.

In fractures, whether simple or compound, the action necessary to reunion is, I believe, very little greater than that of the ordinary healthy action of the part; and I am disposed to think that, in most instances, the process might be much shortened by an attention to this circumstance. A case has been related to me, upon unquestionable authority, of fracture of both bones of the leg, a little above the ankle, followed by reunion in *nine* days. The person had fallen into a well, where he lay nearly an hour before assistance could be rendered him: after being taken out, cold water was applied, as above recommended; and, upon entering the apartment on the morning of the ninth day, the physician in attendance was not a little surprised to find his patient sitting on the side of the bed, with his foot on the floor. Upon examination, the bone, though not entirely consolidated, was found sufficiently so to admit of the abandonment of all artificial support.

Nothing has been farther from my object, in this paper, than to depreciate the value of general and local depletion in the treatment of all inflammatory affections: they are, indeed, indispensable. I have only sought to raise from the situation of a humble auxiliary, a remedy which some little experience has taught me is entitled to rank as a principal.

## HOSPITAL REPORTS,

(Principally condensed from various Periodical Publications.)

### ERYSIPELAS.

*Cases of Erysipelas, treated at the WESTMINSTER HOSPITAL, by*  
MR. GUTHRIE.

I.—JOANNA BURKE, aged thirty, has had several returns of Lichen Syphilitica, and once of Iritis, for which she took mercury until she was in a state of ptyalism. Admitted into the Westminster Hospital with a return of the complaint, and a node on the forehead. On the 8th December, 1827, an incision was made into the node down to the bone, about an inch in length: some matter was discharged, and the bone was bare beneath. This was followed by great relief; but on the 12th she complained of more pain in the head, accompanied by general symptoms of fever, for which she was ordered—

Hydrarg. Submuriat. gr. v.; Ext. Coloc. c. gr. v. statim; with a cathartic draught in the evening; and Liq. Ammon. Acet. f3ss.; Liq. Ant. Tart. gtt. xx.; Aquæ f3j. every four hours afterwards.

13th.—The erysipelatous inflammation of the face became fully developed towards evening; and on the 14th, sixteen ounces of blood were taken from the arm.

3 ij. of the Sulphate of Magnesia were added to the draughts, with the Mist. Camphor; and fomentations to the face.

On the 15th and 16th, the erysipelas did not increase; and on the 17th she was decidedly better, the pulse still continuing about 100, tongue foul, skin hot, and some headache.

21st.—The erysipelas disappearing, but has still pain in the head and below the left ear, of which she is deaf. Bowels have been continually kept free.

23d.—The Sulphate of Quinine three times a day. The erysipelas entirely gone.

On the 4th January, the Lichen Syphilitica again appeared, and was removed for the fourth time by a course of mercury; which had before caused the first to disappear, but seemed to have little influence on the second, and was not given for the third. She remained well when last seen, the end of May.

II.—Diggory Gordge, aged nineteen, was seized, on the night

of the 15th and 16th of June, with erysipelas of the face, accompanied by headache, sickness, a furred tongue, pulse 110, skin hot; the whole face was swelled and red, particularly the nose. He had lately come from the country, and had been admitted into the Westminster Hospital.

He was directed to be bled to  $f\text{z}$  xij.; and to take six grains of the Hydr. Subm. and four of Ext. Coloc. c. immediately; and the following draught every four hours: R. Liq. Ammon. Acet.  $f\text{zss}$ .; Liq. Antim. Tart.  $f\text{zss}$ .; Aquæ  $f\text{zj}$ . fiat haustus.

The pulse, shortly after the abstraction of blood, fell to ninety-three, and he was much relieved by it.

On the 17th, the erysipelatous inflammation had began to diminish; the pulse had fallen to eighty.

The pills to be repeated at night, and the medicine continued.

18th.—Better. The remedies to be repeated.

20th.—Well, with the exception of a slight swelling of the features, which still continues.

The common purgative draught to be given daily.

III.—George Vickers, aged forty, admitted 25th May, 1828, into the Westminster Hospital, suffering from erysipelas of the head and face, the consequence of a wound received on the back of the head eight days before.

26th.—The face is greatly swelled, and the features distended; the tongue very furred; skin hot; pulse 120, small and tremulous; bowels confined. He is sensible, and answers questions readily.

Hot fomentations to the face. Six grains of the Hydr. Subm. immediately, and to be followed by a cathartic draught every two hours until the bowels are open; when he is to have R. Moschi, Ammon. Carbon.  $\text{aa}$  gr. iv.; Sp. Æth. Nitr.  $f\text{zss}$ .; Mist. Camph.  $f\text{zjss}$ . quartis horis.

27th.—Slept in the night for about five hours, although at times delirious. Bowels open; the swelling of the head and face the same as yesterday; pulse 120, tongue furred, great debility.

The purgative to be repeated, and the medicine to be continued.

28th.—Passed a restless night, during part of which he was delirious. Pulse 120, but fuller; tongue cleaner.

Omit the cathartic draught, and continue the medicine every four hours.

29th.—The erysipelas is extending downwards along the neck and breast; at the upper part of the head it has in some degree subsided. Bowels freely open. The Calomel and Colocynth to be repeated at night; and the Mist. Camph. with the Liq. Ammon. Acet. every four hours, without the stimulants, the pulse being fuller, firmer, and ninety-six in number.

30th.—Passed a restless night. Bowels freely open. The swelling is subsiding on the left side of the head and face, but has increased on the right, and is extending on the breast. Tongue cleaner, and upon the whole is better generally.

31st.—Much the same. Pulse ninety-four.

June 1st.—The face more swelled on the right side; the eyelids

closed, from effusion into them: they were punctured, and some thin fluid evacuated.

The purgatives and diaphoretics continued.

2d.—Upon the whole, the man is better: locally, there is matter forming in the right cheek, and the cellular membrane over the temporal muscle is partaking of the disease, giving the feel of a quagmire to the finger.—The abscess in the right cheek opened between the angle of the mouth and the lobe of the ear, and good matter discharged. The eyelids also punctured; and three short incisions made in the neck and breast, and a larger one in the course of the temporal muscle.

R. Infus. Rosæ ʒviij.; Acid. Sulph. gtt. x.; Quinina Sulph. gr. xvj. sumat ʒʒi. tertius horis.

4th.—Complains of a soreness of the mouth from the mercury.

Gargarisma, Chloruret Sodæ ʒiij. ad ʒviij.—A mutton chop and a pint of porter daily.—The Sulphate of Quinine, and wine.

From this time the patient gradually improved, until the end of the month, when he had a relapse, which was again removed by sharp purgatives and diaphoretics, with a cold lotion. There has been a little loss of skin in the course of the long incision from below the zygoma upwards in the course of the temporal muscle, which was laid bare, and is not yet healed.

July 2d.—Discharged to out-patient.

8th.—Readmitted with anasarca of both legs as high as the knees; great debility; pulse weak and ninety; makes little water.

R. Infus. Gentian ʒʒss.; Potassæ Acetatis ʒss.; Sp. Æth. Nitros. ʒʒss. fiat haustus ter in die sumendus.—R. Quinina Sulph. gr. ij.; Mica panis q.s. ut f. pilula bis die capienda.—One pint of porter daily, four ounces of wine. Meat diet.

15th.—Is again nearly well; the swelling in the legs almost gone; the secretion of urine regular; the strength greatly reduced.

Mr. GUTHRIE made these, and other cases to which he alluded, the subject of a clinical lecture. He first drew attention to the fact, that there were several modes of treating erysipelas diametrically opposite to each other, whether with reference to the general or local method of treatment. Dr. CULLEN recommended the antiphlogistic plan, with venesections; Dr. BAILLIE considered bark a specific: both succeeded; and it naturally led to the inference, which was in fact the truth, that there were several kinds of erysipelas, each dependent on the state of the constitution. The discrepancy also which existed as to the local treatment indicated a difference in the extent, character, and seat of the inflammation itself. Mr. Guthrie referred to the observations made by him on erysipelas in the work on Gun-shot Wounds, in which he said all these circumstances were distinctly stated. In the 48th Number of the London Medical Repository, published some years ago, he had related the

history of a case of erysipelas of the head and face, in which bloodletting was carried to a greater extent than in perhaps any other case on record. In three of the four cases lately treated by him, he had recourse to venesection, the antiphlogistic plan generally, with cold lotions. It was in comparison with those he drew their attention to the case of Vickers, treated in a different manner. When this man was admitted, there was great prostration of strength; the pulse was 120, giving a tremulous and indescribable sensation to the finger, indicating a want of power, which bleeding would have greatly increased. In cases of this nature, in which venesection had been resorted to, Mr. Guthrie had seen the symptoms greatly increased, a low muttering delirium brought on, such as occurs in typhous fevers, and the speedy dissolution of the patient the result. For this reason, stimulants were had recourse to for the first three days, until the powers of nature were fully developed, when purgatives and diaphoretics were depended on until matter began to form. The sulphate of quinine, with wine and porter, were then had recourse to, and the patient safely carried through a most formidable malady.

The local effects and treatment of the disease were not less deserving attention. On the left side of the head no matter was formed; on the right side, two different formations of matter took place: the first, in the cheek, was a common abscess, which healed after being opened, without any loss of substance. The second was attended by sloughing of the cellular membrane, rendering an incision through the whole length of this affection necessary. Mr. Guthrie said this case was then deserving observation, being one of the very few recorded in which an abscess, forming and healing like a phlegmonous abscess, took place in erysipelatous inflammation. Another instance of the same kind had occurred last year in a woman with erysipelas of the knee. They were, however, very rare, and he believed he had first drawn a distinction between them and the diffused abscess, complicating the cellular texture and destroying it, in his work already alluded to.

In cases of diffused cellular inflammation, he said incisions of a greater or less length were generally necessary, either to prevent or to cure. Many gentlemen differed in opinion on this point, but it appeared to him this difference was principally in discussion, not in the fact: each selecting for their observations different periods of the disease. For instance, some recommended that leeches should be substituted for an

incision, supposing it was the loss of blood that occurred after an incision which caused the relief. This was a mistake. It was the removal of the tension that rendered the important benefit. Bleeding by leeches might, in the first instance, prevent the extension, or the continuance of the inflammation in the cellular tissue; but when it has taken place, so as to give it the firmness and fulness preceding the boggy feel alluded to, he was sure it was too late for leeches to afford the desired relief. An incision, or incisions, were required, of a length proportionate to the extent and situation of the disease, varying from simple punctures with a lancet, as in the swelling of the eyelids, to cuts of several inches in length, where the texture of a whole limb was invaded. It was the stretching of the skin by the swelling underneath which gave rise to the constitutional irritation, delirium, and fever, and led to the death of the patient. The accompanying sloughing of the cellular texture beneath proved ultimately destructive to the loss of the skin; but, before gangrene took place, the patient was usually carried off.

Mr. Guthrie stated his belief that the disease was almost always confined to the cellular texture above the fascia, which never, therefore, need be divided; and, by avoiding it, any danger which might be feared from loss of blood would in general be obviated: the vessels which usually continue to pour out blood being there immediately running on, and connected with, the fascia of the limb. In fact, he said, he never wished the patient to lose but a small quantity of blood, the object not being to abstract blood, but to relieve tension, by giving vent to the fluids contained and depositing in the smaller part.

Mr. Guthrie referred to the case of Thomas Key, treated by him in this manner in the Westminster Hospital, in October 1823, as exemplifying all these points in a remarkable manner; that his observations published with the case in his work on Gun-shot Wounds, (page 104 to 111, third edition,) show, that the merit is due to him of introducing long incisions in phlegmonous erysipelas, whilst at the same time the modus operandi of their action was plainly developed.

#### MISCELLANEOUS CASES.

##### *Cases of Contraction of the Pulmonary Artery, treated at ST. THOMAS'S HOSPITAL.*

OWEN SWEENEY, aged forty-nine, had been ill five years. When admitted, he had ascites, anasarca of the legs, a quick and rapid pulse, dyspnoea, and palpitation; but could lie down. The pal-

pitiation and dyspnoea had existed a year. The jugulars and other veins of the neck were distended to a great degree. On applying the stethoscope to the right side of the heart, or upon the sternum, a whizzing sound (*bruit de soufflet*) was heard; and it was ascertained, by feeling the pulse, that this sound was synchronous with the contraction of the ventricles.

The principal post-mortem appearances were as follow: The pericardium was adherent to the heart, and contained some portions of cartilage; there was a cartilaginous body in the substance of the wall of the right ventricle, where the pulmonary artery leaves it, and the artery was contracted in size to that of the brachial, there and for some inches beyond.

These particulars have been kindly furnished by Dr. ELLIOTSON, and they prove that his diagnosis was perfectly correct.

Dr. E. had not met with another case of the same kind until within the last two months, when a patient came to the hospital with symptoms so much resembling those of the former case, that he immediately declared that it arose from the same cause.

The man's name was Crawley, his age sixty, and he had been out of health some months. The general symptoms were orthopnoea, anasarca of the arms, thighs, and legs; considerably increased action of the carotids and radials, and distention of the veins of the neck, with tenderness of the epigastrium. The stethoscope, as in the former case, gave the only certain indication of the cause of the disease. On applying it to the upper part of the sternum, a loud and distinct *bruit de soufflet* was heard, at the moment when the ventricles contracted, proving that the obstruction must be at the outlet of one of those cavities, while the situation in which the noise was heard, and the distention of the veins, pointed out the right as the one implicated. The only material differences between the two cases were the circumstance that, in the former, the patient could lie down, while the latter could not, and the increased action of the carotid and radial arteries in the latter. These did not attract much attention at the time, and they most probably arose from a very different cause from that which produced the other symptoms. What this cause was will appear in the sequel.

*Sectio cadaveris.*—This was performed under very unfavorable circumstances, being done almost by stealth, in the patient's house, and when the body was in a very advanced state of decomposition. In consequence, a very minute examination could not be made, but the heart itself was brought away.

The pericardium was adherent to the surface of the heart in every part; the heart itself was enlarged to twice its natural size, and its substance was very much softened, and so changed in

texture, as almost to have lost its fibrous appearance. A part of this change might be owing to the decomposition, but certainly not all of it. The walls of the cavities were thickened, but not in proportion to the increase in size of the whole heart; the cavities themselves, and especially those on the right side, being much dilated. At the origin of the pulmonary artery, a fibro-cartilaginous structure was found, as large as a small egg, and almost surrounding the artery; which was, in consequence, so much diminished in calibre, that it would scarcely admit the little finger: beyond, the artery retained its usual size. Here, then, was precisely the morbid change which had been foretold, and another proof that the stethoscope is not quite so useless an instrument as some suppose it to be. But another most unexpected disease was found in the chest: a very large aneurism of the aorta, which had burst before the body was opened, and probably before the patient's death, as the blood with which the back part of the chest was filled had coagulated. This was not looked for, but might it not have been so? Was there not, at least, one symptom of it? It has been already stated, in the account of the symptoms, that there was increased action of the carotid and radial arteries, and that the patient could not breathe in the recumbent posture: both these symptoms were present, in a remarkable degree, in the case of aneurism of the aorta described in the Gazette a few weeks since. The latter is a usually described symptom of the disease: may we not conclude that the former also, although it has not hitherto been mentioned as a symptom of aneurism of the aorta, is yet one, at least, of the aneurism by dilatation, which both these cases were? Two cases are scarcely sufficient on which to build an opinion; and it appears almost incredible that such a remarkable symptom should have been overlooked, if it had existed in other cases.

The obliteration of the cavity in which the heart naturally moves, by the adhesion of the two surfaces of the pericardium, was a very remarkable point of resemblance in both the cases described in this report. It must materially have contributed to produce the symptoms; and Dr. Elliotson is inclined to think that adhesion of the loose pericardium, from inflammation, is a very common commencement of many diseases of the heart, as well as of that above described. It will be remembered that in the first case (that of Sweeny,) the pericardium was beset with pieces of cartilage, resembling that which produced the obstruction.

It may, perhaps, be said, that when there was so much other disease, and especially in the latter case, (aneurism of the aorta,) it is unfair to attribute the symptoms to the obstruction of the pulmonary artery. But, first, such an



obstruction could not exist without producing some very marked effects.

Secondly, the main symptoms were precisely those which diminution of the outlet of the artery would produce.

Thirdly, LAENNEC asserts—and subsequent pathological observation has confirmed the truth of the assertion,—that the stethoscope is incapable of giving any certain indication of the existence of aneurism of the aorta, and that it is continually found without having been suspected.

Fourthly, whatever may be the real symptoms of such an aneurism, neither it nor adhesion of the pericardium have ever been known to produce a ventricular *bruit de soufflet* confined to the right side.\*

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*Case of Extra-Uterine Fœtation, in which the Fœtus remained in the Abdomen forty years.* Communicated by HENRY LEE HEISKELL, M.D. of Winchester, Va.

THE following case occurred in the poor-house of the parish of Frederick, in Virginia.

Venus, alias Venus Collins, a coloured woman, emancipated in November 1795, by Sarah Zane, deceased, late of the city of Philadelphia, became pregnant with her seventh child, which she bore until her death, which occurred in the summer of 1825. As near as could be ascertained by a reference to the records of the clerk's office, and the statements of her fellow servants, (one of whom was her daughter-in-law,) she was from seventy to seventy-five years of age, and carried the fœtus forty years. During this period, and in particular the latter part of it, she enjoyed remarkably good health for one in her situation, being only occasionally incommoded by a sense of weight and bearing down in her right side, which was sometimes accompanied with slight pain. In the early part of her pregnancy, she had hydropic effusions, for which (as well as I could ascertain) she underwent the operation of paracentesis abdominis. She had no show of the menses after this period, nor did afterwards conceive again. For several years before her death, the infirmities attendant on old age, and the difficulties of providing for herself, rendered her removal to the Poor-house necessary, where she remained until her death, which happened in consequence of an attack of dysentery.

A post-mortem examination of her body was conducted by Drs. A. S. BALDWIN and HOLLIDAY, in presence of several medical students. On making a crucial incision through the parietes of the abdomen, and turning back the flaps, a large bony tumor was found in the lower part of the epigastric region, inclining rather to the right side, and firmly agglutinated in front to the parietes of

\* Medical Gazette.

the abdomen, and behind to the small intestines. The only morbid appearances of the viscera presenting, were a diminished size of the uterus, and an obliteration of the fallopian tubes: the ovaria were not to be found.

The tumor itself was of an oblong form, which, when removed from its attachments, weighed four pounds and six ounces. The envelope formed a perfect bony hermetically sealed sac, on all sides, but rather thin at the part corresponding to the anus; for, when considerable pressure was made in the direction of its short diameter, a few drops of dark fluid made its way through the covering.

The substance of the sac or covering was of an ossific nature, of a dirty-white or cream colour, varying from two to three lines in thickness; so resisting, that it required not only a strong knife for its division, but also a very considerable degree of strength.

On removing the sac, which had formed adhesions to several parts of the fœtus, particularly the superior part of the right thigh, a fœtus, perfect in its form and configuration, was presented, having apparently gone the full period of utero-gestation. Its position in the sac exactly resembled that of a fœtus in utero; having the chin resting upon the chest in such a manner that the face looked towards the left side; the trunk was incurvated, the legs bent upon the thighs, the thighs upon the pelvis and abdomen, the feet crossed, and the arms folded between the head and knees. Owing to the firm pressure of the sac, the abdomen and lower part of the chest received the impression of the arms and thighs; and the latter, in turn, from the same cause, were somewhat flattened.

The weight of the fœtus, divested of its covering, was three pounds and three-quarters, and measured, in its contracted state, eleven inches and one-half in length. So faultless was every limb and feature, (with the exception above stated,) that no one of them presented an exception worthy of special remark. The general aspect, however, of the fœtus bore evident marks of *age*, (if the remark might not be considered a contradiction.) The muscles and integuments were firmer and more consistent than in the natural state, and the latter were very generally ossified, except those portions which were covered by the foldings of the arms and thighs: consequently the integuments which partook of the ossific character had a decided preponderance over the parts which did not take on a change of structure. The pericranium was entirely in an ossified state, over which some traces of hair were discernible, and the remains of the eyelashes were distinctly perceptible.

On examining the contents of the cranium, thorax, and abdomen, the following appearances were noticed: The brain was a soft pulpy mass of an ash colour, presenting nothing very remarkable in its appearance. The contents of the thorax and abdomen were in a singular state of preservation, as perfect as those of a stillborn child; nothing of decay or putrefaction could be disco-

vered in any portion of them. The meconium exhibited the usual dark appearance and consistence. The tongue was firm and ash-coloured; and the nails of the fingers and toes perfect.

No traces of umbilical cord or placenta could be discovered.\*

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*Case of Sudden Death connected with Organic Disease of the Heart.*

By HARPER WALTON, M.D.

PARTRICK M'CCLASKEY, æt. fifty-six years, was admitted into the PHILADELPHIA ALMS-HOUSE INFIRMARY, several months previously to his death, which occurred suddenly on the 7th of March, 1827. During the month of December, 1826, he was observed to labour under considerable dyspnœa and irritating cough. His face exhibited a livid complexion, and this appeared to be produced by a congestion of the capillary vessels with imperfectly decarbonated blood. He was distressed with feelings of anxiety, and entertained apprehensions of death. This patient had frequently been observed to have a pulse remarkable for its slowness and irregularity. On the 23d of January, 1827, I examined this attentively, and found it full and voluminous; beating, also, thirty-six times in one minute precisely, with equal intervals of time between the pulsations. The venous complexion of the face, the paroxysmal dyspnœa, with a state of general debility, continued till the hour of his death.

The antispasmodic remedies, especially the Lac Assafoetidæ, and a combination of Hoffman's anodyne with laudanum, in small and repeated doses, were found useful palliatives of the cough and difficult respiration. Mild laxatives, with a light and easily digestible diet, were administered throughout his disease, with advantage.

On the 7th of March, about ten A.M., I was requested to see him immediately, as he had been suddenly seized with "a fit," resembling apoplexy, only a few minutes before. On my arrival at his bedside, I found him perfectly motionless; his lips livid; his face pallid; and, in short, every symptom denoting death. As the jugular veins were very turgid with blood, I immediately opened one of them, and drew a considerable quantity of blood, which, however, produced no kind of effect. I learned from those who had witnessed his death, that he had eaten his breakfast in the morning as usual, and that he had spoken to an assistant of the ward on some familiar topic, about a quarter of an hour before his death. They also stated that the attack was very sudden, that it resembled a fit, in which there were violent muscular exertions, and that it lasted about ten or fifteen minutes.

Twenty-four hours after death, assisted by my friend Dr. ASHMEAD, I made the post-mortem examination. Nearly the

whole of the exterior surface of the lungs was found united to the parietes of the thorax, by long-established adhesions of the pleura. The heart was found unusually large, soft, and flaccid. The right auricle was found much enlarged; its parietes very thin, and in some of its parts resembling a translucent membrane. The orifices of the coronary veins were considerably dilated. The tricuspid valve had a reddish colour, with less transparency than what is usually observed. The right ventricle was also dilated. Both of the left cavities of the heart were very much enlarged; and the mitral valve which intervenes appeared thickened from the effect of diseased action. The lining membrane of the left ventricle was found, in some of its portions, thickened and opaque; and near to the junction of this cavity with the aorta, there was a deposit of osseous matter.

Upon the surface of the semilunar valves, at the origin of the aorta, there were also marks of ossification, and a few points of ossific formation were discovered upon the lining membrane of the great artery at its curve.

Immediately after leaving the heart, the aorta was found dilated to twice its natural size, and those portions of it situated about the origin of the innominate, left carotid and left subclavian arteries, from their thinness were very easily torn.

The stomach presented a natural appearance, but the texture of its mucous coat was softer than what is usually found in one perfectly free from disease.

On examination of the brain, a considerable quantity of effused serum was found between the dura-mater and the arachnoid membrane. The lateral ventricles were much distended with this fluid. The substance of the cerebrum was unusually firm; that of the cerebellum uncommonly soft. Numerous red points, from congested vessels, appeared when incisions were made through the medullary portion of the cerebrum.

Was apoplexy in this case the immediate cause of death? It has been remarked by a physician of high authority, that "the predisposition to apoplexy is probably laid in all those causes which produce a decay in the moving powers of the circulation, in organic feebleness," &c. &c. Causes such as have been described had evidently, for a considerable period, produced that disordered state of the circulation which would result from a "decay in its moving powers." They increased, moreover, in force, up to the period of the patient's death. The venous colour of the capillaries of the skin,—the turgescient condition of the venous system during life,—the extreme slowness of the pulsations of the heart,—the dyspnoea, &c. furnished proof sufficient of a greatly obstructed circulation. In this state of repletion the venous system of the brain must have shared largely; and when we take into view

the extreme vascularity of that organ, we can readily account for the sudden and fatal injury which it sustained.

According to **ABERCROMBIE**, apoplexy depends "on an interruption of the course of blood from the brain," which in effect points to congestion of the vascular system of this organ and its meninges as the immediate cause of the disease.

By **SERRES** it has been denied that compression of the brain is a cause of apoplexy. By this position, congestion, as a cause of apoplexy, is also denied; for compression is an obvious result of a congestion of the vascular system of the encephalon. The opinion of Serres was founded on experiments made upon dogs, in which he failed to produce apoplexy, either by compression of the brain artificially, or by producing effusions of blood within the substance of the cerebrum. In man, however, compression of the brain, by depression of the cranial bones, or by effusions within its substance, is a very common occurrence; and with it, also, apoplectic symptoms have been strongly marked. In performing experiments upon the brain of animals, in order to ascertain the effects of its compression, it appears to me impossible that there can be a condition produced by art similar to that which exists in cases of apoplexy the natural course of disease. Artificial compression cannot be made to affect the brain beyond a certain degree; that degree must be partial, though it may be great; but that produced by congestion or distention of the whole cerebral vascular system must evidently be universal, and consequently more fatal in its effects.

By recurring to the description of appearances presented by the examination of the brain, further proof of fatal injury, by congestion of this organ, will be immediately evident. There could not, indeed, be discovered any effusions of blood into the cerebrum, cerebellum, or cranial cavity, or any rupture of blood-vessels; but there are by no means necessary attendants, since observation has proved that apoplexy may happen without any of these.

In the Dublin Hospital Reports for 1827 will be found an interesting paper, by **R. ADAMS**, which contains cases illustrative of apoplexy connected with organic changes affecting the structure of the heart.\*

\* Ibid.

## TUMORS.

*Cases of Tumors removed from different Parts of the Body.*

By Dr. BALLINGALL.

(Concluded from page 56.)

V.—JAMES M'INTOSH was admitted, November 12th, with a soft moveable tumor impacted between the roof of the orbit and globe of the right eye; the superior eyelid was protruded outwards and considerably inflamed, as well as the conjunctiva covering the surface of the tumor; the ball of the eye was depressed by the swelling towards the cheek. The structure of the eye, however, appeared perfectly sound, and the vision unimpaired, except in so far as it was partially obstructed by the projection of the tumor, which obliged the patient to throw back his head, and to elevate his face in attempting to see objects placed before him. He was unconscious of any accident to which this complaint could be attributed, assigning its origin to exposure to cold in the month of January preceding. This patient was in the hospital in the month of July last, at which time the tumor was not above a fourth part of its present size, and occupied nearly the site of the lachrymal gland: he was urged to have it removed, but would not consent, although told that he would in all probability return with it at a future period, when the operation would be more difficult both for him and for me.

This accordingly happened, and he was now solicitous for its removal, which Dr. Ballinghall began by dividing the superior palpebræ upwards and outwards from the external canthus of the eye, and, after dissecting it off from the surface of the swelling, the tumor was with much difficulty separated from the contiguous parts; a pedicle, or neck, by which it was found adherent to the very bottom of the orbit, was then cut across with a pair of probe-pointed scissors, and some small portions of it afterwards removed.

This was followed, in the first instance, by a very moderate degree of swelling and inflammation; much less, indeed, than was to be anticipated. For nearly a week the case had a very favorable aspect, but at the end of this time the forehead and upper part of the face became involved in a violent erysipelatous inflammation, which gradually extended over the whole head, accompanied with delirium, his pulse at one time rising as high as 150. It was observed, soon after the operation, that his breath was imbued with the mercurial fetor, which he attributed to some medicines taken before his admission. The urgent symptoms were somewhat alleviated by bleeding, both general and topical, by the internal exhibition of antimonials and saline purgatives, the application of a blister to the nape of the neck, with the use of an anodyne fomentation to the inflamed parts.

On the 22d, he was found to have sunk so low that he was not expected to live through the ensuing night; his pulse 120, his

breathing laborious, and his extremities cold, with low muttering typhoid delirium. From this state he again rallied under the use of brandy-and-water, beef-tea, and the application of a second blister to the nape of the neck. A copious discharge of unhealthy matter had for some days been going on from the affected eye, the cornea of which now ulcerated; and, on the morning of the 27th, the crystalline lens was discharged through the aperture. His delirium continued with occasional intermissions, during which he asked for and devoured food with a ravenous appetite. His pulse continued frequent and weak, his breath fetid and offensive, and his general appearance resembling that of a patient in the advanced stages of typhus. The cuticle separated in crusts from those parts of the head and face in which the inflammation had been seated; rigors and diarrhoea latterly supervened; and he expired on the evening of the 28th.

Permission could not be obtained to examine the body, and the utmost the surgeons could effect was to make a hasty examination of the head and the parts concerned in the operation. A portion of the principal tumor was found still adherent to the sheath of the optic nerve, and several small melanotic tubercles imbedded in the fatty matter surrounding the muscles of the eye. Some serous effusion had taken place both on the surface and into the ventricles of the brain.

Dr. Ballingall states, that if he had been fully aware of the nature of the disease, and of the deep attachment of the tumor, he should have proceeded at once to extirpate the whole contents of the orbit; but having succeeded in removing the bulk of the tumor with safety to the eyeball, he felt reluctant to change his plan of operation. The inflammation immediately succeeding to the removal of the tumor was much less than was to have been expected from so severe an operation; but, when the symptoms of erysipelas supervened, it was obvious that the case became one of a very perplexing and hazardous description.

VI.—Robert Amos was admitted on the 29th of January. A soft elastic tumor, slightly moveable, about the size of an orange, projects from the right orbit; superiorly, the finger may be readily insinuated between it and the skin of the eyebrow; but inferiorly, internally and externally, it encroaches much on the skin of the surrounding parts; the skin of the palpebræ and the conjunctiva, which cover the greatest part of its surface, are (particularly the former) of a dark colour, and the veins of these membranes are much enlarged and very tortuous; in the centre of the tumor there is a sloughy bleeding fungus, slightly elevated above the remainder of the swelling, and through this the probe may be passed backwards for about two inches and a half: the passage of the probe is attended by some thick dark-coloured fetid discharge. On the

right and left temple, and under the skin of the under and upper lip, there are smaller tumors of a similar character, but much firmer in consistence. Ten years ago the eye was injured by a blow, two years afterwards the sight was completely lost, and in six years more lancinating pain began, and was succeeded by the swelling, which has continued to increase for the last twenty-two months.

The whole of this diseased mass was removed a few days after his admission, and the bony margin of the orbit, near the external canthus of the eye, being found affected by the disease, a portion of it was scraped off with a strong scalpel. The cavity was afterwards filled with dry lint, which readily suppressed the hæmorrhage.

This man's symptoms, subsequent to the operation, were extremely mild: the cavity suppurated kindly, and its surface soon became covered with healthy, perhaps rather pale-coloured, granulations. About ten days after the operation, he had (like the other cases of operation within the orbit) a smart attack of erysipelas, which disappeared in a few days under the employment of bloodletting and purgatives. The last report states, that the man's general health continues apparently unimpaired, and the interior surface of the orbit presents a smooth, healthy looking surface, the discharge from which is daily diminishing.

On examining the eye, the texture of the tumor was found so completely broken down as to render it difficult to speak with certainty as to its original nature. Dr. Ballingall, however, is disposed to consider it as an example of the fungus hæmatodes. This tumor began, as far as could be ascertained, in the globe of the eye: it presented the soft elastic feel characteristic of fungus hæmatodes; it was attended with lancinating pains, and was subject to occasional bleedings. The principal, and perhaps the only argument against this opinion as to its nature, is the existence of other tumors in the neighbourhood, evidently of a melanotic appearance; a circumstance which goes to support the identity of the two affections.\*

\* Condensed from Dr. BALLINGALL's Clinical Lectures, March 1838.



## CRITICAL ANALYSES.

Que laudanda forent, et que culpanda, vicissim  
 illa, prima, creta; mox hæc, carbena, potestum.—PANDURA.

*Transactions of the Medico-Chirurgical Society of Edinburgh.*  
 Vol. III. Part I. With Plates.—8vo. pp. 316. Black, Edinburgh; Longman and Co, London. 1828.

So many interesting communications have been contained in the previous volumes of the Transactions of the Medico-Chirurgical Society of Edinburgh, that we naturally look in each succeeding part for additional proofs of professional zeal and ability. We hasten, therefore, to give an abstract of the present volume, which has just issued from the press.

The first paper is from Dr. BOGGIE, Surgeon to the Forces, upon the subject of *Hospital Gangrene, with reference to the disease chiefly as it appeared in the British Army during the late war in the Peninsula.*

Hospital gangrene may be regarded as the most serious affection to which wounded surfaces are liable. It destroys without distinction, and involves in one common mass all the textures which it attacks. In military hospitals this affection is seen in its most aggravated forms. No disease, indeed, is more destructive than this to an army on service. During the late war in the Peninsula, it was extremely fatal in proportion to the numbers affected by it, and many men were totally unfitted for the service by its ravages. Much diversity of opinion exists as to the nature of the affection, its causes, and treatment. Dr. Boggie, therefore, is induced to give an account of the disease as it occurred to himself, with a description of the treatment, and the probable causes which produce the malady. In the works of the oldest writers, we find allusion made to a gangrenous affection supervening to wounds and ulcers. The only doubt whether the disease mentioned by them is the same as hospital gangrene, seems to arise from their not having noticed its contagious nature. Dr. Boggie conceives that this is no proof of its not being the same disease, as the ancients were but little acquainted with the subject of contagion and infection, and that point even now is by some disputed.

“Hospital gangrene has been found to prevail very often in ships of war, and in naval hospitals, where great numbers of wounded have been crowded together. It has also existed in hospitals by no means crowded, and where every attention was paid to ventilation; and it has been known to prevail, and that

extensively, among wounded who had never been in hospital, as I shall afterwards relate. It shows itself at all seasons of the year; but authors are not agreed as to that in which it chiefly prevails. Boyer seems to think that it is most frequent after the great heats of summer, and during a continuance of southerly winds.\* I hope to be able to prove that it will be found in its greatest virulence during a continuance of very hot weather.

“ There are two forms under which hospital gangrene usually appears. The first I would name Contagious Gangrene; the second Phagedæna Gangrænosa. Professor Delpech, of Montpellier, who has given a very excellent account of this disease, mentions four different forms: the first he denominates the Ulcerous (Ulcereuse); the second the Pulpous (Pulpeuse); the third and fourth seem to be varieties of these two.†

“ When a wound or ulcer is affected with contagious gangrene, it becomes painful and swollen, loses its healthy florid appearance, and the granulations, which were small and distinct, become flabby, and appear sometimes as if they were distended with air; at other times, vesicles containing a watery coloured fluid, or bloody serum, have been observed, and the sensation in the sore has been described as resembling the stinging of a gnat. The secretion of pus is suspended; the wound is dry; and covered with a tenacious viscid ash-coloured matter, which adheres firmly to the surface. When this morbid state has existed for some time, a discharge take place of a thin ichorous matter, of a very peculiar smell; the pain increases, the edges of the wound are reverted, and in general assume a circular form; an erysipelatous redness surrounds the wound, and sometimes extends to a great distance, even over a whole limb; the neighbouring glands, as those of the axilla or groin, swell, inflame, and sometimes suppurate; febrile symptoms become apparent; the pulse is accelerated, full and strong; the heat of the surface is much increased; the patient complains of nausea and thirst; the tongue is covered with a whitish or brown crust; and the bowels are in general constipated. The inflammation goes on increasing, the thin ichor continues to be discharged in great quantity, and a thick slough, apparently of coagulable lymph, covers the whole surface of the wound; the fetor becomes intolerable, and the pain quite insupportable. In the last stage, there is in general an oozing of blood from the surface of the wound, and not unfrequently distinct hemorrhage, from the corrosion or destruction of the larger blood-vessels. Sphacelus takes place to a greater or less extent; the strength of the patient fails; the pulse sinks; his countenance becomes collapsed and altered; the skin is bedewed with a clammy sweat; and a diarrhœa with hiccup coming on, the scene very soon terminates.

\* Vide *Traité de Maladies Chirurgicales*, tom. i. p. 321.

† Vide *Memoire sur la Pourriture d'Hôpital*, p. 4, et seq.

"Though this is the most common form of the disease which I have seen, as it occurs in a recent wound, and in strong healthy men, who are the ordinary subjects of it, yet I am well persuaded that the fever which accompanies hospital gangrene is not always of so phlogistic a character. It has been often observed to partake more of a typhoid type; and it is of the utmost consequence in practice to attend to this distinction, as it will be found that what would be a valuable remedy in the one case might, if carried to any extent, be very pernicious in the other. The not attending sufficiently to this circumstance,—that is, to the phlogistic or typhoid type of the fever,—has, I am convinced, often led to fatal mistakes, and seems to be partly at least the cause of that great diversity of opinion among medical men regarding the best mode of treating this very dangerous affection." (P. 3.)

The other form in which hospital gangrene usually manifests itself is more of a chronic nature, appearing seldom in a recent wound. Such patients had generally been long in hospital, and many had suffered attacks of the more acute form, and when the wound was apparently doing well, the granulations healthy, secreting good pus, and sometimes even nearly cicatrised, a small dark-coloured spot, or ulceration, commonly appeared on the edge of the sore.

"This little ulceration was in general of a circular form, its edges ragged, its bottom unequal and excavated, and secreting a matter of a very peculiar smell. Ulcerations of the same kind not unfrequently appeared in other points, which, spreading in all directions, united, and soon extended over a great part of the wounded surface. At times this ulceration has been known to go on, and to cause very considerable destruction of parts, without the system appearing to be much affected by it; but most frequently after it had spread to a certain extent, symptoms denoting constitutional irritation became apparent: these were nausea and loss of appetite, thirst, foul tongue, restlessness, a small and quick pulse, and heat of skin. After the febrile symptoms had appeared, the progress of the ulceration was more rapid, and very often extended beyond the limits of the original sore; the discharge became bloody, and the fetor peculiar to this affection more offensive. Sphacelus in many instances took place, and some time before death the same train of symptoms occurred already described as taking place in the last stage of the more acute form of the disease. This is the depascent, or phagedenic, form of hospital gangrene, or what may be called phagedæna gangrænosa." (P. 7.)

In the milder cases of this disease, the skin and cellular membrane are originally and principally concerned, and sometimes it may be confined to these textures. In more violent cases, one structure is destroyed after another. The

bones even, being deprived of their covering, often become carious. The duration of the disease is various. It sometimes terminates as early as the third, fourth, or fifth day, either in recovery or death. Patients who have been once attacked, even when convalescent, are very liable to suffer a relapse. Dr. HENNEN mentions a case in which the patient survived twelve different attacks, but sunk under the thirteenth. Specific sores, such as venereal, scrofulous, and variolous, are thought to be less liable to this affection than simple sores. They are, however, by no means altogether exempt. Dr. Hennen mentions a case in point. The patient had an open bubo, and was carried off by the disease in forty-eight hours; the gangrene affecting the sore almost instantly, eroding the great vessels, and destroying the abdominal parietes to a great extent.

"A great peculiarity in the phagedenic form of the disease is, that different actions, such as the ulcerating, suppurating, and cicatrising, may frequently be seen going on in one sore at the same time. During the prevalence of the hospital gangrene at Bilboa, this peculiarity was often observed; the same thing was remarked by Dr. Rollo at Woolwich.

"After military punishments, in consequence of neglect or other causes, hospital gangrene sometimes occurs; and, from what has been stated in the description of the disease, the appearance and consequences of it may be easily imagined." (P. 9.)

In warm climates, phagedæna is very liable to ensue after punishment. Dr. Boggie states that a spirituous embrocation is the best application to heal the wounds thus produced, and to prevent the subsequent bad effects.

Hospital gangrene is considered to be nearly allied to erysipelas, if it be not a modification of that disease.

The causes which induce this affection are not yet determined. The foul air of crowded hospitals is doubtless a frequent cause. But we are told there is no hospital, however small, airy, or well regulated, where it may not prevail.\* It has been known also to appear among wounded who had not been in hospital at all.† Particular states of the atmosphere have certainly some influence in the production of this formidable ailment. It has been known to prevail at all seasons of the year; but, according to Dr. Boggie's experience, more frequently and severely in hot weather than in cold. He is inclined to consider a heated atmosphere to be one of the most powerful exciting causes. Inattention to cleanliness

\* Bell's Principles of Surgery, vol. i. p. 108.

† Rollo on Diabetes, vol. ii. p. 262.

produces the worst effects upon wounds and sores, and frequently produces gangrene, particularly the phagedenic form. Acrid or irritating applications contribute very effectually to the production of the disease. This is one objection to the use of ointments. When long kept, they always become rancid, and irritate extremely. On this subject, the suggestions of Sir EVERARD HOME are worthy of attention.\*

*Stimulating food.*—Dr. Boggie has very little doubt that the disease may be produced by change of food, as from vegetable to animal diet. The abuse of wine and spirituous liquors is very likely to produce hospital gangrene.

“In that very violent form of hospital gangrene which prevailed at Bilbao in the summer and autumn of 1813, whatever other causes might have contributed to the production or continuance of the disease, there is not a doubt in my mind but that it was rendered much more virulent, and that it was even perpetuated in the hospitals there, by the use of wine and other stimulants, injudiciously administered. From an idea which very generally prevailed that the accompanying fever was typhus, and that hospital gangrene could not be prevented, or successfully treated, unless by stimulants, antiseptics, and tonics, a liberal allowance of wine was made to every patient as a preventive; and, when the disease actually appeared, it was then prescribed in increased quantity as a cure; the consequence of which was a fatal termination in almost every case. On this point I am very sorry to be obliged to differ so widely in opinion from my friend Dr. Hennen.” (P. 19.)

Motion, or mechanical irritation, is a much more frequent cause of hospital gangrene than has been imagined. Dr. B. is convinced that, in transporting the wounded from the field, or from one hospital station to another, when at any considerable distance, more cases of hospital gangrene appeared upon the road than in any other situation.

*Specific contagion.*—When the disease is once produced, although the same causes continuing to operate may be sufficient to keep it alive, it appears probable that a contagion is generated, and that the disease may be propagated in this way to a certain extent at least, even although the causes by which it was originally produced should have ceased to act. Dr. Boggie, however, imputes much less to this than to the continued operation of the original or other irritating causes, although he feels assured that the disease is contagious, and even infectious. The prognosis, as in other diseases, must depend on circumstances.

“If the patient is young and healthy, of temperate habits, and the accompanying fever inflammatory, even although the affection

\* Home on Ulcers, p. 39.

should be pretty severe, the prognosis, I think, may be favorable; but, on the contrary, if the patient is old, addicted to intemperance, his health bad, and particularly if the gangrene should be complicated with fractures of the bones, or a scorbutic diathesis be present, with a fever evidently typhoid, it must be very unfavorable.

"In laying down rules for the treatment of this complaint, we must be guided entirely by the symptoms. If the constitution is much affected, general remedies will be required; if, on the contrary, the affection appears to be entirely local, the cure may be trusted to topical applications; but in many cases both the one and the other will be found to be necessary. It is of the utmost consequence, also, to attend to the type of the accompanying fever, and to ascertain whether the gangrene is simple or complicated with any other disease, such as scurvy or bilious fever, in which case its character will be modified, and the corresponding treatment must also be different." (P. 32.)

The treatment may be divided into general and local. When the wound is recent, and the patient young and healthy, the accompanying fever is mostly inflammatory. If the spirits of the men are dejected by great sufferings and frequent defeat, the fever is of a low type. In the former cases bloodletting will be required: it must, of course, be proportioned to the degree and violence of the inflammation, and the age and strength of the patient. In men not of a robust constitution, and who have lingered long in hospital, or suffered much from ill health, we must act with the greatest caution. Bloodletting in such is either altogether inadmissible, or should be sparingly used. To local bleedings, by cupping and scarifying, Dr. Boggie has no objection. "The danger of the punctures becoming gangrenous appears to me not to be very great. The same objection has been made to general bloodletting; but, though I have bled many in this disease, I never saw a single instance of gangrene supervening to the operation." (P. 34.)

As far as the observation of the author goes, in the early or inflammatory stage of hospital gangrene, spontaneous hemorrhage seldom occurs, and, if it be not too profuse, it might be beneficial. In the latter stages, he considers it an alarming symptom. Many patients at Bilboa were thus carried off. Upon this subject, Dr. B. differs from Dr. HENNEN.\*

Emetics have been sometimes used with advantage; but as a general remedy they are considered inferior to cathartics. The cases to which they are chiefly applicable are those where

\* Military Surgery, p. 223.

the stomach is loaded, and where the fever appears to be of a bilious character. By universal consent, cathartics are deemed indispensable. Their use is indicated where bleeding would have been improper, or at least not much required. Bark, in the *advanced* stages, may be given alone, or with mineral acids. Opium also, in the more advanced stages, should the patient complain of restlessness, will be beneficial. Camphor also, in the low state of the disease, has been useful. In the early stage, wine is improper.\*

"But, although the use of wine and other stimulants, in the early stage of hospital gangrene, while there is great vascular action as well as much local inflammation, cannot be too highly reprobated, yet there are states of this disease in which it will be found not only not injurious, but very beneficial: such, for example, as the advanced stages of hospital gangrene, which occur in poor old infirm people, or where the patients have lingered long in hospitals, and their health has been broken by previous disease, or where the fever is evidently from the first of a typhoid character." (P. 40.)

*Local treatment.*—Topical applications may be comprised under three heads—sedatives, escharotics, and stimulants.

"When the inflammation continues violent, cold applications, such as water alone, rendered colder artificially, and solutions of sugar of lead, are what I should prefer. Whatever objections there might be to the cold affusion as a general remedy, nothing appears better calculated to subdue inflammation in the local affection, and consequently to allay pain, than the continued application of cold: besides, in very warm weather, it is much more agreeable to the feelings of the patient than any thing hot. To obtain all the advantage from the sedative effect of cold, cloths dipped in the liquid should be applied to the part, and kept constantly moist. I have already mentioned an instance of the good effect of cold in the prevention of hospital gangrene, and I have no doubt that, if applied steadily in cases to which it is adapted, it will be found a most valuable remedy.

"Poultices of all kinds,—the common emollient, as also the fermenting, carrot, turnip, and charcoal,—being always applied warm, have appeared to me in general to aggravate the pain; nor can we be surprised at it, when we consider what a powerful stimulant caloric is. Poultices, though applied cold, soon acquire the temperature of the body: they are, therefore, not the best applications in this complaint, and are objectionable also on account of their weight.

"When the inflammation abates, the sloughs separate, healthy pus is secreted, and florid granulations spring up. When this is the case, the wound should be dressed simply with dry lint, over

\* Thomson's Lectures on Inflammation, p. 495.

which a pledget of emollient ointment ought to be applied, and the whole supported by a good compress and roller. Should the sloughs continue to adhere after the inflammation has abated, some stimulating application, such as a mixture of resinous ointment and oil of turpentine, known by the name of warm dressing, may be made to the wound; or an ointment composed of unguent. resinosum and oxyd. hydrarg. rubrum, in the proportion of 3j. of the latter to 3j. of the former. On such occasions I have also found the diluted nitric or muriatic acids, or the citric and acetic acids, good applications; in the same cases, a solution of argentum nitratum will be found very useful. It is in this state of the inflammatory gangrene, that warm fomentations and poultices may occasionally be employed with advantage, and that the stronger escharotics, such as the concentrated mineral acids, caustic alkalies, arsenical solution, or the actual cautery, may be used most successfully; but it is not improbable that escharotics, applied at a very early period, when the morbid action is just commencing, may sometimes, particularly in old wounds, arrest at once the progress of the disease. A more generous diet may now be allowed, and even a small quantity of wine. But, although the patient has arrived at the stage of convalescence, and may be considered as safe, I can affirm, from extensive experience on this point, that if he be guilty of any excess, more especially in drinking, of using exercise, of not attending to the proper dressing of the wound, or neglecting the state of the digestive organs, he is almost certain of suffering a relapse, when the same train of symptoms will be renewed, and the danger of the patient will be infinitely greater, and exactly in proportion to the state of debility to which he is reduced." (P. 41.)

The utmost attention must be paid to cleanliness of the wound and proper bandaging. Should phagedæna supervene, which may be known by the appearance of a small dark spot or ulceration, escharotics should be immediately applied. The argentum nitratum and oxyd. hydrarg. rubr. have been chiefly employed by Dr. B. The undiluted sulphuric, nitric, and muriatic acids have also been used with the same intention. Mr. BLACKADDER is of opinion that hospital gangrene, under any form, may be speedily and certainly cured by the external application of the arsenical solution. The actual cautery has been strongly recommended by the French writers.

The paper terminates by three tabular returns, which give an idea of the extent to which gangrene prevailed in the Peninsula, and of the comparative efficacy of the different modes of treatment.

A paper, by Dr. BALLINGALL, gives a brief description of a remarkable case of *Crural Hernia*.



*Observations on the Natural or Spontaneous Cure of Syphilis*, by Dr. WILSON, of Hull, is the next communication. The object of the writer is to offer some comments upon the practice of the army surgeons, as the inquiries they have so meritoriously instituted may not convince every mind of the propriety of their practice. Some interesting remarks are made upon the causes most likely to impede the adoption of their treatment; and facts and inferences are stated which seem to confirm the principles on which it is founded. Dr. W. observes, that—

“Whether the use of mercury may be safely superseded altogether in this disease, will require a large accumulation of experience to determine: in the mean time, where the antiphlogistic treatment can be safely adopted, and effectually followed, there can be no doubt that it will be equally successful in private practice; but, as the same rigid observation of rules cannot always be expected, it is probable that the general results will be less favorable than in hospitals, or in military and naval practice.” (P. 71.)

*A Case of Polypus, of great size, which was removed from the Root of the Tongue by Ligature*, is next related by Dr. HUE.

Some interesting observations are made in a paper, by Dr. R. E. GRANT, on the *Viscera of the common Swordfish*.

Dr. GIBSON gives a brief account of the *Epidemic Erysipelas which appeared in Montrose and the neighbourhood in 1822*. This disease continued to prevail epidemically for about four years. It was much more severe in all the symptoms, and more fatal than the sporadic erysipelas. The mortality was about fifteen per cent. The disease was not so much confined to the head or face as common erysipelas; it frequently occurred in other parts of the surface of the body. The internal fauces were sometimes attacked, and, if it spread to the trachea, it generally proved fatal. In illustration of the nature and progress of this disease, some cases are detailed.

*Case of a Congenital Disease, or Malformation of the Thigh-bone, illustrating the Pathology of Interstitial Absorption of the Cervix Femoris*. By ROBERT KNOX, M.D. &c. &c. The subject of this case was two years old, and died of pulmonic disease. It was suspected that there existed a tendency to scrofula in the family. A striking difference existed in the right lower extremity, when compared with the left. The limb was about three-fourths of an

inch shorter than the other, and the toes were slightly turned out. The hip-joint was sound. The acetabulum was not at all affected. The head of the femur was in a natural state, but the neck of the bone might be said to have disappeared. Such cases are rare.

"The continental pathologists, and more particularly Mr. Beclard, seem to regard these alterations, which attack not only the trochanters and neck, but also sometimes the head of the bone (as may be seen in all museums), as arising from the continual pressure and weight of the body. The above case offers an insurmountable objection to this theory; and, besides, I have in my possession the vertebræ of a young person which have undergone this alteration, and in whom all the other bones of the body were perfectly sound." (P. 104.)

*On the sudden Spontaneous Obstruction of the Canals of the larger Arteries of the Body; with some Observations on the Process employed by Nature to prevent or arrest Hemorrhage from lacerated Arteries.* By J. W. TURNER, Professor of Surgery, &c.—It has sometimes been observed that the pulse has suddenly and permanently disappeared in one part of the body, while it has continued distinct in the other parts. In some cases of this kind, it has been found, on post-mortem examination, that an obliteration had taken place of a portion of the tube of the artery, in which the pulse could not be felt during life. No full account of this morbid affection has yet been published, and we are indebted to Mr. Turner for the relation of several interesting cases of it, which our limits will not permit us to abstract. Several of them have, indeed, been already published in different works.

From the number of cases he has been able to collect, Mr. Turner is disposed to believe that the sudden spontaneous obstruction of the arteries is not of unfrequent occurrence. The communication is interesting, not only from the mass of evidence collected upon the subject, but from the judicious practical observations which the writer offers. Two plates are given, illustrating the obliterated condition of different arteries.

We are obliged to pass over several papers, which are not, however, without interest.

This volume concludes with some *Additional Cases and Observations, illustrating the Origin of Tubercles*, by Dr. ALISON, &c. &c.—It would appear, from many facts which have occurred to Dr. A., both from reading and from personal observation, "that in certain constitutions, inflammation,

acute or chronic, but most generally chronic, does frequently and directly lead to the deposition of tubercles. As far as the most minute anatomical investigations can inform us, tubercles are very seldom found in the bodies of children who are stillborn or die very shortly after birth. On this point, Dr. ALISON trusts chiefly to the statements of Dr. DENIS. In by far the greater number of the very numerous cases in which tubercles are found in bodies of young children, the diseased actions by which they were formed had originated after birth, and seldom sooner than some months after birth; parents transmitting to their offspring only the tendency to this kind of diseased action, and very seldom the actual disease. Several cases are detailed for the purpose of confirming the opinion that tubercular depositions are frequently consequential upon inflammatory diseases.

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*Hints to young Medical Officers of the Army on the Examination of Recruits, and respecting the feigned Disabilities of Soldiers; with Official Documents, and the Regulations for the Inspection of Conscripts for the French and Prussian Armies.* By HENRY MARSHALL, Surgeon to the Forces.—8vo. pp. 224. Burgess and Hill, London, 1828.

THERE are two very difficult duties which the army surgeon is called upon to execute. The first is to prevent men, who offer themselves as recruits, from entering the service with some concealed moral or physical infirmity, which unfits them for the life of a soldier; and the second is to guard against the various, well conceived, and long sustained stratagems, by which those who have had enough of a life of glory endeavour to escape from it. We have ourselves frequently felt the perplexing difficulties which attach to either of these services, and should have been very grateful for such numerous and judicious hints as those which Mr. Marshall has given upon this subject.

The design of the author is to explain to young medical officers the nature of the duty of examining recruits, and to illustrate the rules and usages of the service upon that point. The remarks on the feigned disabilities of soldiers are intended to convey some information upon a subject, a knowledge of which can only be thoroughly acquired by a long acquaintance with military hospitals, and a habit of intimately observing soldiers during health, and of treating them under disease.

The heavy responsibility that is attached to the execution

of such a duty must be evident. On the one hand, punishment may be inflicted where real disease exists, from the belief that the soldier is a "skulker;" and, on the other, we may suffer ourselves to be duped by artful impostors, to the obvious injury of the service. It is not only the loss of one man that is to be guarded against. The successful attempt is known throughout the regiment, and others, who are equally anxious to escape from military discipline, or to obtain pensions to which they have no claim, are encouraged to repeat it. If it is known that the surgeon has been once deceived, the fear of detection is naturally diminished.

It cannot be necessary that we should dwell at any length upon the necessity of the utmost caution in doubtful cases. By time, and an accurate scrutiny, we may frequently arrive at a just decision, where a hasty opinion would be dangerous; and common humanity demands that every precaution should be used, and the utmost degree of medical skill exerted, to avoid so cruel an error as that of fixing a stigma upon the character of an innocent and suffering soldier, or perhaps even of adding the tortures of the lash to the pains of disease. It cannot be expected that the young army surgeon, however attentively he may have studied his profession, can perform so difficult, and to him so novel a task, with the tact and adroitness of the veteran practitioner, who is well acquainted with all the tricks and stratagems that are frequently so ingeniously conceived, and so ably executed. To him, therefore, caution will be doubly necessary, and the assistance of Mr. MARSHALL'S "Hints" doubly valuable.

We must pass over the "Official Documents," which are placed at the beginning of the work. We cannot, however, but observe, that many of the Horse-Guard "Circulars" were so severely worded as necessarily to lead to almost an indiscriminate rejection of recruits. That such was the effect they produced, may be inferred from the more moderate and qualifying tone which marks those which were subsequently issued.

In two preliminary sections, we find some interesting remarks upon the regulations for the admission of recruits into the French and Prussian services. In the former, conscripts convicted of feigning disabilities were sentenced to hard labour for five years. To secure the fidelity of the executive officers, a host of informers was employed. In Napoleon's time, the price for a substitute was at one period fourteen thousand francs (560*l.*)

The leading qualities required in recruits are comprised

under four heads: \* viz. height; a certain period of life; health; activity, or the full power of using the several members of the body. The two former belong to the province of military officers: the latter are generally left to the determination of the medical branch of the service. The infirmities or defects that disqualify recruits for service are divided into three classes: obvious defects, chiefly external; defects not obvious, chiefly internal; feigned defects.

*Obvious defects.*—Defects of this class are frequently dissimulated by recruits, who are often instructed in this species of fraud by men belonging to recruiting parties and old soldiers. The military, as well as medical officers, are sometimes imposed upon. Recruits have added to their height by glueing pieces of buff to the naked soles of the feet. Again, the height is reduced, if necessary, by flexing the head forwards a little, pushing out the abdomen, and slightly bending the knees. To dim the brightness of grey hairs, blacking has been applied.

“ In the examination of recruits, the following routine will be found to be both expeditious and safe: the names, trades, &c. of the recruits for the day having been inscribed in the register, let them ‘fall in,’ and be inspected in their clothes. During this inspection we frequently succeed in detecting deserters, and men who have been in the army, and discharged in consequence of disease or disability.

“ Let them next be examined singly undressed. Upon entering the inspection room, each recruit is to walk a few times pretty smartly across the apartment, for the purpose of ascertaining that he has the perfect use of his inferior extremities. This is a very essential part of the business of inspection. Notwithstanding a rigorous observance of it, however, I have known a medical officer called upon to explain why he approved of a recruit, who, after joining the corps to which he belonged, did not perform the ‘goose step’ to the entire satisfaction of his commanding officer. He is then to be halted, set up in the position of a soldier under arms, with the knees about an inch apart, and examined from head to foot. The inspection may be conducted with reference to the following qualities, or conditions of the body:

“ Colour. Muscular capability. General health.

“ The condition of the external surface, comprehending chronic eruptions, marks of punishment, ulcers, cicatrices, &c.

“ The configuration of the thorax, spine, and pelvis.

“ The condition of the superior extremities, comprehending symmetry, fractures, contractions, mutilations, &c.

\* The specific rules for the guidance of the surgeon were issued in June 1824, from the army medical department. They are given at page 13 of Mr. Marshall's work.

"The condition of the inferior extremities, including symmetry, &c. as also varicose veins, nodes, flatness of the soles of the feet, distorted and supernumerary toes.

"Should no material defect be perceived during this survey, the examination should go on. The recruit is then to perform, in imitation of the hospital sergeant, the following manual evolutions: To stretch out the arms at right angles with the trunk of the body, then touch the shoulders with the fingers, next place the backs of the hands together above the head; in this position let him cough, while at the same time the examiner's hand is applied to the rings of the external oblique muscles. Examine the spermatic chords and testes; then pass the hand over the bones of the legs. The recruit will next stand upon one foot, and move the ankle-joint of each extremity alternately. And when any doubt is entertained respecting the efficiency of the ankle-joint, or any part of an inferior extremity, he should be made to test his strength in that respect by hopping upon the suspected limb for a short period; and the size and aspect of the corresponding joint or part of the opposite limb should also be accurately compared. Let him then extend the superior extremities forward, for the purpose of having his arms and hands examined: he is in this position to perform flexion and extension of the fingers, and to rotate the forearms. The head is next to be examined, including the ears, eyes, nose, mouth; then ascertain that he possesses the function of hearing, and the power of distinct utterance; next inquire whether he has passed through the small-pox or been vaccinated. The examination of a recruit in this manner will require about five or six minutes; and, if carefully performed, very few disqualified men will be admitted into the service." (P. 62.)

No recruit should be examined while he is intoxicated. "If it be discovered that a recruit had formerly been in the army, his case should not be determined until he produce his 'discharge,' or 'instructions,' by which the cause of his leaving the service may be ascertained. Many men, without apparent disease, or any well-marked physical defect, will make but indifferent or bad soldiers.

"There is a very objectionable description of recruits often met with in large cities, namely, young men whose health has suffered from debauchery of various kinds. Their peculiar appearance is commonly well marked: complexion wan and colourless, doughy sodden look, tremulous lips and hands, clean teeth, breath, and smell peculiar to spirit-drinkers; often fulness of the belly and tendency to fatness; their manners and language of the better kind. This class is usually composed of footmen out of place, clerks, shopmen, broken tradesmen, profligate irreclaimable sons of gentlemen, &c. &c. I know of no species of recruits more unfit for the service; they are seldom out of the guard-room or the hospital." (P. 69.)

Marks of punishment, whether military or *civil*, are, in obedience to the rules, sufficient cause for absolute rejection. In the examination, plasters, however small, should be removed from the skin. They are sometimes employed to cover the D which has been made, by the decision of a court martial, for desertion.

*Cicatrices.*—Scars on the neck, the probable consequence of strumous ulceration, are commonly deemed a disqualifying defect. Whether they should invariably cause a recruit to be rejected when he has attained the age of manhood, may admit of doubt.

If the cavity of the thorax is diminished by curvature of the spine, the incapacity of a recruit is evident. Deformity, or any disabling circumstance attending the feet, is a serious imperfection in a soldier. He is soon fatigued, is unable to endure a long march; his feet are liable to swell, inflame, and excoriate. A disposition to hernia, from preternatural enlargement of the ring, is not unfrequent, and forms good ground for rejection. Hydrocele and sarcocoele are decidedly disqualifying infirmities. The state of the eyes should be carefully attended to.

Without considerable care, we may be deceived as to the "mental faculties" of recruits. Absolute wisdom, we apprehend, would not be required; but a mere natural, though he might stand coolly enough to be shot at, could never make a soldier, in the true acceptation of the term.

To determine the existence of internal disease, is frequently not an easy task. Many infirmities possess no external mark of their existence; neither are they evident from manifest symptoms. Even after the most rigorous inspection, therefore, unfit recruits will occasionally obtain admission into the ranks.

*Feigned defects.*—The simulation of infirmities is much practised by recruits, as well as by old soldiers. The one wishes to escape admission, and the other to procure a discharge, particularly if he has any chance of sweetening it with a pension.

"Some excite ulcers; others affect stammering, deformity, pain in various parts of the body, deafness, blindness, epilepsy, contractions of the fingers, lameness, &c. Some of these simulators display considerable art in carrying fraudulent plans into execution, and arrange their assumed defects so as to have them in tolerably good keeping." (P. 89.)

Let it never be forgotten that "many recruits, who, from disgust with the service during the period of hard drill, evince a disposition to simulate ailments, or to aggravate trifling

defects, become, by mild and humane treatment, excellent soldiers. From the experience which we have had, we are inclined to lament that the initiation of recruits is so completely left to non-commissioned officers, who not unfrequently estimate their importance by the degree of severity they exercise. We freely admit there are many and honorable exceptions to this remark: it will apply, however, but too often.

"Too much care cannot be taken, both by military and medical officers, to make young soldiers fond of their profession. For this purpose they ought to be treated with a due degree of respect, their condition should be rendered as comfortable as strict discipline and circumstances will permit; they ought never to be tormented with useless innovations, or exposed to unnecessary fatigue; every engagement or promise made to them ought to be rigorously observed. Correct discipline should, if possible, be preserved without the adoption of measures that may be denominated severe, or that have a tendency to humiliate or degrade a man in his own opinion, or that of his comrades. While breaches of discipline are punished, good conduct ought never to pass unnoticed. Implicit confidence should rarely be placed in non-commissioned officers with regard to their conduct to the men. Young soldiers are commonly unwilling to prefer complaints, but when they do they deserve a patient hearing. A commissioned officer should himself ascertain that strict justice is given to a recruit in every thing connected with his barrack accommodation, food, and pay. (P. 90.)

The conduct and general demeanour of soldiers are much influenced by the nature of the discipline under which they are controlled. Hence there is a much greater proportion of malingerers in some regiments than others. In considering the subject of counterfeit diseases, or disabilities, two objects are to be considered:

"1. What are the means most likely to be successful in discovering whether an alleged disease be real or feigned?

"2. When a malingerer has been detected, or, in other words, when it is, after due consideration, presumed that a disease is feigned, what are the most probable means for inducing him to return to his duty, or for convicting him? (P. 92.)

In a great majority of instances, an impostor cannot long conceal his deception from a careful observer. Dr. BECK's opinion on this subject is, however, much too strongly stated. He says, "Nothing can be more disgraceful than that a surgeon, one who is supposed to know the nature and symptoms of disease, should be deceived by an individual who feigns his maladies."\* To this Mr. Marshall very properly replies, that

\* Elements of Medical Jurisprudence, p. 28, English edition.



every medical officer, at all conversant in the wiles of old soldiers, will readily admit that he has sometimes been deceived. There is no circumstance which so commonly distinguishes truth from fraud, as the report a malingerer makes in his complaints. Although he may have gleaned a little information from medical works, in order that he may be enabled to play his part with dexterity, he will usually fall into some inconsistencies which will lead to his detection. We can rarely derive information from the hospital attendants and orderlies: they would incur the hatred of their companions if they were known to communicate privately with the medical officers respecting the conduct of patients. Mr. Marshall suggests as an improvement, that it would be well "to have a ward or two in all general hospitals, on the plan of a *panopticon*," where a confidential person might observe what was going on, unseen by the patients.

Various infirmities are simulated by soldiers. Intermittent fever; continued fever. To quicken the pulse, tobacco is swallowed, or introduced into the anus; flour and chalk are employed to whiten the tongue. If the bilious tinge of a coated tongue is required, a little gingerbread is chewed. Mr. Marshall has reason to think that ligatures are sometimes applied round the thigh to aggravate, if not to excite, varicose veins of the legs. Various irritants are applied to the eye, to produce inflammation. "To excite disease of the palpebræ, the hairs of the ciliæ are extracted, and caustic applied to the place where they have been withdrawn." In France, above 200 conscripts succeeded in being declared amaurotic by the external application of belladonna to the eye. The same trick is sometimes practised here. The author has known "dilated pupils and blindness temporarily produced by a small portion of the leaf of the *datura metel*, which was mixed with the man's food." Chronic disease of the liver is frequently pretended. It is often extremely difficult to detect the simulation of rheumatism. The non-existence of uneasiness cannot be proved, and all must admit that a considerable degree of pain may be present without a well-marked change in the external appearance. Spitting and vomiting of blood, by various manœuvres, are frequently assumed. A private belonging to the tenth regiment displayed considerable fortitude:

"This man pretended that he had lost the power of his inferior extremities, and for a period of about two years endured all that medical skill and suspicion of his testimony could suggest, with the view of enabling or forcing him to return to his duty. Before recommending him to be invalided, his medical attendant submit-

ted him to the following trial: he was confined in a small room, and a shelf well stored with provisions suspended over his head, which he could easily reach by merely standing upon his legs, but not otherwise. At the end of forty-eight hours, the food remaining untouched, it was not considered advisable to prolong the experiment. He was then included in the list of invalids, and put on board a transport bound for England. While in the harbour, an alarm was given, about midnight, that the ship was on fire; every one hurried into a boat alongside: after reaching the quay, the passengers were mustered, and it was found that the paralytic invalid had not only succeeded in saving himself, but also his trunk and clothes. He was remanded to the ranks. (P. 124.)

Again—

“A soldier asserted that he had nearly lost all power over the inferior extremities, in consequence, as he stated, of a hurt received on the loins. Active means were employed; and, as he was from the commencement suspected of being an impostor, the measures were long continued. The patience of the medical officer who attended him became exhausted, and he was eventually recommended to be discharged. The day he was to receive his discharge, he crawled on crutches to the office where it was to be given him. Having obtained the document, he begged one of the officers of the establishment to read it to him, which he did twice. After satisfying himself that the discharge was properly made out, he first deliberately threw away one crutch, then another, and darted forward, overturning two men who happened to be before him, and finally disappeared, springing over a car, with a water-cask on it, which stood in his way.—During the late war, a man belonging to the Cavan militia was, in consequence of assumed weakness of the inferior extremities, kept in his regimental and the general hospital of this city for two or three years, and almost the whole of this period he never moved without crutches. He was at last discharged. The day after he received his balance of pay, he had himself driven in a car to the Phoenix Park, where the Cavan militia was at exercise. Upon approaching the corps, he laid aside his crutches, and advanced in front of the line; he then bounded like a deer for some time before the regiment, and, after slapping his breech, scampered off as fast as he could. The object of some impostors appears to be incomplete, until they make it known to all their comrades that they have obtained their discharge entirely by a deliberate system of deception.” (P. 126.)

Palpitation is occasionally produced by the application of tight ligatures to the neck and upper part of the arms. Irregularity of the action of the heart was in many cases produced at Haslar, by taking the powder of *veratrum album*.

As a proof of the necessity for the utmost caution in doubtful cases of mental disorder, we cite the following lamentable instance of mistaken opinion:

"Joseph Godfrey belonged to the 83d regiment, and served with that corps at the Cape of Good Hope eleven years. During this period he exhibited symptoms of derangement five different times, on *each* of which occasions he was tried by a court-martial for pretending madness in the hope of getting his discharge, and sentenced to be flogged, which sentence was *successively* carried into effect. Maniacal paroxysms continued to recur after he was discharged, and during one of the accessions he committed suicide by drinking a quantity of sulphuric acid." (P. 140.)

Incredible as it may appear, there is good authority for the fact, that, among the French conscripts, ascites was excited by injecting water into the cavity of the abdomen.

Enough has been stated to show how much army surgeons have to guard against, and to prove that, however well qualified for civil employment a practitioner may be, it will be necessary for him, if he enter into the service, to make himself thoroughly acquainted with the duties which are peculiar to it. For valuable suggestions upon many of the most important and perplexing ones, we cannot refer to better authority than the very interesting and instructive volume we have just noticed.

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*On Difficult Cases of Parturition, and the Use of Ergot of Rye.*

By W. MICHELL, Member of the Royal College of Surgeons.—  
8vo. pp. 128. T. and G. Underwood, London, 1828.

THE author of the present volume does not lead us to expect a complete treatise on the difficult cases of parturition, and still less a system of instruction on the science of midwifery. He gives us merely a few practical hints on the lingering and laborious cases which every accoucheur must occasionally meet with, and in the treatment of which but little assistance is to be derived from professed treatises on the subject of midwifery in general. The materials from which this publication has been written have been collected during many years in the course of the author's practice. Notes have been regularly made of all singular and difficult cases at the time, and of the practice pursued on the occasion; and from the accumulation of these manuscripts the present work has been gradually formed.

Particular attention has been paid to the effects of the ergot of rye, and the author trusts he has *proved* the virtues of this remedy, concerning which much discrepancy of opinion exists. In every obstetrical work, we look as a matter of course for a dash of indignant feeling against the notorious few who have endeavoured to decry the utility of this branch of science, and to degrade the respectability of its professors.

Their efforts, however, have recoiled upon themselves, and the effusions of their spleen might safely be passed over as unworthy of any formal notice. Upon this subject but one observation appears to be necessary. The very men who assure the public that uneducated females are quite as capable as the well-instructed male practitioner of performing the various duties of the obstetric art, give a flat contradiction to their own assertions, by securing the assistance of the latter in their own families. Dr. KINGLAKE, of Taunton, it appears from Mr. MICHELL's preface, "accuses the medical practitioners of having cajoled the women into the indelicate system of retaining male attendants on such occasions." The delicate Doctor is recommended to make inquiries in his own neighbourhood, to ascertain what sort of cajolery has been practised; and, if he fails in obtaining this knowledge at home, he may consider what effect the following statement from Mr. Michell's neighbourhood would produce in cajoling the females into the modern system: "Of twenty-one deaths that have occurred in this neighbourhood within the last twelve years, *nineteen* have been women attended by females only!

Mr. Michell complains, unjustly we think, that the subject of puerperal convulsions "has been most sadly neglected by most writers." Has he referred to DENMAN, BURNS, MERRIMAN, DEWEES, &c. &c.? From this assumed neglect of this important subject, he is led to pursue it somewhat further, in the hope that it may be found acceptable to the junior members of the profession. After such an introduction, an elaborate essay upon this disease might be expected. But seven pages, however, are devoted to it, and one case is detailed, and as we discover nothing important in the preliminary observations, and by no means approve of the treatment of the case, we shall pass over this "further" investigation of the subject of puerperal convulsions with one short extract: After delivery, "the convulsions still continued, with longer intervals. I gave her  $\mathfrak{d}\mathfrak{j}$ . of musk, to be doubled every paroxysm until they ceased. Three doses I have invariably found to overcome the complaint."

The contents of the second chapter are not of sufficient importance to arrest our attention.

Upon the subject of Lingering Labour, Mr. Michell observes, that it will frequently exhaust a woman's strength when the presentation is right, notwithstanding all our attention. That such cases sometimes occur, we do not deny; but our own experience would lead us to doubt their *frequency* under proper management.

A long confinement of the head in the pelvis is equally dangerous to the mother and to the child : by its pressure, it stops the circulation, bruises the soft parts, and often brings on sloughing and gangrene.

"When dangers of this sort occur, I would not advise the adoption of the forceps, as I verily believe that more lives have been lost than saved by the use of them. Because delivery may be expedited by them, they are often had recourse to without the slightest occasion; and, from the cases I shall hereafter introduce, it will appear that, whilst we have medicines which will expel the child naturally, there can be no good reason for the use of an instrument, which often occasions sloughing and death. When there is scarcely sufficient room without the forceps, it is evident that such an addition to the diameter of the child's head must greatly increase the difficulty, and in the same proportion augment the danger." (P. 18.)

We would by no means advocate the hasty application of instruments in the practice of midwifery, but we cannot consent to this condemnation of the use of the forceps in lingering cases. That they are sometimes unnecessarily applied, and sometimes inexpertly, is doubtless true; but this complaint might be urged against every remedy and every instrument we possess. In skilful hands, and in pressing cases, the forceps is both a safe and an effectual instrument. With respect to any medicine capable of inducing the natural expulsion of the child, much additional testimony must yet be presented to us before we should venture to depend so confidently upon its agency as Mr. Michell is inclined to do.

Upon the subject of the Cæsarian operation, the author argues that no valid reasons can be alleged for a preference to this operation to the opening of the child's head.

"I am at a loss for the least excuse for the practitioner, who would sacrifice the life of the mother that the child may be saved. To say nothing of the great danger of sacrificing both by so rash a choice; for I conceive the most resolute of our profession would hesitate long before he made up his mind to so cruel an expedient, and this delay would generally insure the death of the child. But, supposing the infant could be saved, on what plea can we put the life of the mother in comparison with that of the child? If, by a contrary practice, we save one woman out of five, even to the destruction of five children, I conceive the advantage is still on this side. If the increase of mankind be the consideration, the woman saved may afterwards have five children, and these have children as early (within a few years) as the infant had it been saved. Again, the woman may have a family, and thus a valuable life would be placed in the greatest jeopardy for the sake of saving an infant, which, in the lower ranks of life, if deprived

of its mother, generally becomes a burden to every one concerned with it, and often a pest to society, from its want of maternal protection in his youth. I may then be allowed, I should hope, to plead the cause of the unfortunate mother, and to urge, as I most earnestly do, that every chance of life should, in all cases, be given to the woman.

"I would, therefore, in every instance, recommend the opening of the child's head, in preference to the Cæsarean operation; and we shall then, at least, not have to mourn over orphans deprived of a parent's care, by any calamity which our art might have prevented. Let the medical practitioner then first open the child's head; endeavour to produce expulsive pains, by the means I shall hereafter point out; and, should these not be attended with success, let the head be cut in pieces, which may be easily effected: it may, indeed, without difficulty be pulled in pieces, so as to pass some of the most narrow pelves. And let us hear no more of the Cæsarean operation, which I consider a disgrace on the profession of the accoucheur, as scarcely an instance of recovery from it has occurred in modern times." (P. 22.)

Mr. Michell informs us, that if he did not object to the Cæsarean section in every case, he would point out a more safe method of performing it before the head descended into the pelvis, and even after, than the plan now recommended. "In all the recorded cases which we can rely on as true hysterotomy, or cutting through the uterus, the deaths have been fifty to one recovery." Mr. Michell would therefore pronounce it to be justifiable only in the instance of the woman's death. In that case it may save the child, if performed with sufficient expedition. We freely confess we have no practical knowledge of this dreadful operation, but we can conceive cases of extreme deformity where it would be impossible to deliver the woman by any means without having recourse to it. We lament, therefore, that the author has not given us the opportunity of judging of the superiority of the mode of performing it to which he alludes. Dr. Dewees has taken a very judicious view of this subject in his *System of Midwifery*.

We consider it particularly fortunate that Mr. Michell is in possession of a remedy for exciting the action of the uterus, upon which he places so much reliance, namely, the ergot of rye; for it appears that, before he trusted to the effects of this medicine, he was in the habit of gradually introducing his hand, when he "found the os uteri thick, rigid, and unyielding, or deep, thin, and flaccid," until he had fully dilated the parts. Cases may certainly occur in which this sort of manual interference may be justifiable for the purpose of hastening delivery; but to lay it down as a general mode

of practice in such states of the soft parts, we hold to be alike dangerous and injudicious. We would rather, with Dr. CONQUEST, do nothing, than run the risk of doing irreparable injury. Upon this subject, indeed, there appears to be a want of agreement in Mr. Michell's doctrines and practice; for in the next chapter we find no mention of the introduction of the hand in a case of lingering labour from rigidity of the soft parts. Has Mr. Michell no confidence in bleeding, mild laxatives, emollient injections, and *patience* on the part of the practitioner, where the os uteri is "thick, rigid, and unyielding?"

We are again compelled to dissent, and strongly too, from the opinion that diluted spirits "were the best means we were possessed of to accelerate lingering labours, before we were acquainted with the good effects of the ergot of rye."

To increase and quicken uterine action, and thereby to facilitate delivery, the author has tried various vegetable\* and mineral substances. The former were sometimes of limited use; the latter produced no effect whatever. He therefore very properly paid immediate attention to the accounts of the ergot of rye, and subjected its pretensions to the test of his own experience. Of this remedy he gives a very favorable opinion.

"The result has been, that, after its successful application for many years, I am now fully convinced that it is a safe and efficacious medicine in accouchery cases; possessing all the properties which a practitioner could desire. Its effect on the contraction of the uterus, both before the expulsion of the fœtus and after this has been accomplished, is such as to remove all danger attendant on the woman, quickening and facilitating the delivery, and preventing spasm or flooding afterwards." (P. 54.)

We pass over the enthusiasm with which the author proceeds to dwell upon this subject. He is of opinion that, as soon as the ergot of rye is generally known in female practice, "it will supersede the necessity for male practitioners, except in a very few instances." He will not be surprised if, in twenty years, the forceps are known only by name. Is he serious?

In the eighth chapter, a succinct account is given of the production of the ergot from rye and other plants; its general appearance, as stated by different writers, and observed by the author; its medical properties; when first observed, and the difference of opinion with respect to its poisonous qualities. That particular property of ergot which forms the

\* What were these vegetable substances?—REV.

subject of this work, its power of exciting the uterus and increasing its action, was first noticed by Dr. STEARNS, of New York, in 1807. Until the last three or four years, this medicine has been almost exclusively used by the American physicians. We have so frequently alluded to the subject, that it would be needless, upon the present occasion, to dwell upon the various opinions entertained either of its mode of action or its efficacy. We shall confine ourselves to the result of our author's experience.

In reference to the cautions which have been given for the administration of this remedy, Mr. Michell "hopes that the perusal of this work, and the great number of cases detailed, will satisfy the profession that it will be productive of evil in no cases except those of bad conformation, and wrong presentations which require turning." It appears to act more quickly, and with more certainty, when given in the form of infusion or decoction. Half a drachm is considered the proper dose to commence with. Mr. Michell has given it in wrong presentations, purposely to witness its effects, and has even turned whilst its action on the uterus has been most marked. He therefore does not admit the conclusion, which has been stated by some practitioners, that it is productive of injury to the mother and child where the birth is delayed by mechanical impediment.

"The great value of the ergot consists in its efficacy in cases of non-dilatation of the os uteri: in these its power is most conspicuous, as it will produce its dilatation in a few minutes, which otherwise would require many hours. The repetition of the dose I have not found necessary in more than one case in fifty: to require it at all, there must be a great rigidity of the ligaments, muscle, and, in fact, of all the parts both within and without the pelvis." (P. 71.)

In abortion, Mr. Michell considers the ergot altogether inefficacious.

By many, the use of this medicine has been restricted to cases of natural presentation, where the parts were properly dilated, and the progress merely delayed for want of action. But in such cases we had, says the author, all we required without the ergot; for one and a half ounces of brandy in six ounces of water, *repeated every fifteen minutes*, would be certain in a short time to bring on uterine action. In the lower ranks of society, gin and brandy are generally administered with as much liberality as even Mr. Michell recommends, and yet cases of lingering labour, where the soft parts are fully dilated, are quite as common in this class of patients as amongst those who have too much discretion



themselves, or who are at least too much under the guidance of judicious practitioners, to adopt the reprehensible use of spirituous potations, which we here find so unwarrantably advised. Let us not be accused of undue or unnecessary severity; but we cannot refrain from entering our protest against this encouragement of a most injurious practice, which every accoucheur must have frequently found it so difficult to restrain, and of the evil effects of which most are fully sensible. We admit that the administration of brandy may occasionally be required during the progress of labour; but its use must be limited by much judgment and discrimination.

It has been said that we have no power of controlling the effects of the ergot when they are once established. The author denies this assertion. "Opium will be found to stop its effects within a very few minutes." The only distressing symptom Mr. Michell has ever known this remedy to bring on has been vomiting, which he considers almost a certain attendant on the rapid dilatation of the os uteri.

"Another objection is, that when the child is born any length of time after its administration, it is always still-born. This opinion of its effects I consider to be altogether erroneous. The reason why the death of the infant has been attributed to it is, that it is only administered in long, lingering cases, in which it is well known the child is frequently stillborn without the exhibition of ergot." (P. 73.)

Flooding has been said to cause death when ergot is administered. Mr. Michell contends that death from flooding, where the ergot has been given, can never occur. "It is, on the contrary, of the greatest advantage in cases of flooding, and were it only for its virtues in hemorrhage it would be a most invaluable medicine."

The volume concludes by a detailed statement of many cases in which Mr. Michell has given it with complete success, and of *all* those in which he considered it to have failed. He trusts that, from the facts he has stated, "every one will be able to judge for himself of the powers of ergot without attending to the opinions, arguments, or theoretical deductions of any individual whatever. Practice, and practice only, must eventually decide on all subjects of this nature." Now, for our parts, we should be much inclined to weigh well, at least, the opinions and arguments of every individual, in order that we might arrive at a satisfactory conclusion by impartial inferences from the collective evidence which has been accumulated upon this subject.

In most of the cases related by Mr. Michell, the influence

of the ergot in accelerating uterine action appears to have been decided. In several instances the os uteri was not at all dilated, and the labour not making any progress at the time of its administration. Some of the cases adduced are not altogether satisfactory as far as regards the agency of the ergot. Some cases of menorrhagia are mentioned, in which no benefit was derived from the use of this remedy. The author states that he has used the ergot in many hundred cases, and that he has never once regretted its use. It may be proper to remark, that he always adds one-third of milk to the infusion, and milk has been said to be antidotal to its violent effects.

In conclusion, Mr. Michell observes that his only motive for undertaking the trouble of this publication is a firm conviction of the utility of the ergot. Upon this subject his testimony is certainly valuable.

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*Notes on the Epidemic Cholera.* By R. H. KENNEDY, M.D. lately Surgeon at Bombay Presidency.—8vo. pp. 277. Calcutta.

Dr. K. informs us that he has been many years a resident in the East Indies, where, since 1818, he has had frequent opportunities of studying the nature of epidemic cholera; that he adopts the opinion that it is capable of being communicated by contagion; and that he believes it to be *concussion of the brain*. We have examined the foundation of his theory with much attention, and we do not find, amongst the arguments by which he attempts to prove his extraordinary notion, any that are original; and the greater number of them are, indeed, those identical ones which Assistant-surgeon CHAPMAN\* advanced in 1821, to show that cholera was a disease, probably inflammation, of the cerebellum and medulla oblongata. Dr. KENNEDY enumerates many symptoms which strongly support the opinion that cholera may be a primary disease of the nervous system; but he fails in his attempts to demonstrate that the prominent and diagnostic symptoms of acknowledged concussion of the brain are also the most constant and distinguishing ones of cholera. We have ourselves seen instances of both these diseases in India during the last epidemic, and we are surprised that Dr. K. should attach so much importance to the occurrence of the vomiting and collapse in both cholera and concussion, and apparently quite forget that, in cases of concussion, the vomiting is only at the commencement, and is unattended with the peculiar purging so distressing in cholera; that, in

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\* See Madras Report, 1824.

the latter, the mental faculties are unimpaired and vigorous to the last; while, in the former complaint, they are always more or less injured during the disease, and sometimes continue weak and defective through the remainder of life. Again, debility has been regarded as a very common predisposing cause of cholera, because it is less fatal to Europeans and robust natives than to those whom superstitious rites, intemperate habits, or former disease, have rendered weak. But, as far as we are aware, of these various causes, intemperance alone can be reasonably supposed to aggravate the effects of concussion. The rapid abstraction of blood, the introduction of a bougie, the fumes of tobacco, &c. &c. will all frequently produce long-protracted syncope, with vomiting, &c.; and yet we imagine Dr. K. would not, in these cases, attribute such symptoms to concussion, unless, like BROUSSAIS, he admits of but one disease.

Dr. Kennedy does not profess to be the inventor of a new treatment for this disease, as is evident from the following brief quotation, which contains, in his own words, his peculiar doctrines, and the mode of treatment he has adopted:

"I consider concussion of the brain to be the disease, how induced I know not, following the above inexplicable shock sustained by the constitution; and the collapse and spasms to be symptomatic of the disorder of the brain; and, finally, I consider the purging and vomiting to be no part of the disease, but the struggle and efforts of nature to relieve the constitution, and cast off the noxious principle which is destroying it. For the treatment of such a disease, the indication is distinctly apparent to relieve the brain by bleeding, and to induce the sanitary process of vomiting and purging where they do not exist, or to moderate them when violent. Into these brief injunctions may be resolved all that has been written on respectable authority; and the only difference in my theory is, that I would propose a regular systematic procedure, in preference to the uncertainty, hesitation, and undecidedness, which, in spite of every thing that has yet been written, continues to prevail in a case where, of all others, the patient's safety most mainly hinges on the promptitude of treatment."

In justice to the author we must add, that, though we feel quite averse to adopt the peculiarity of his theory, yet we fully appreciate his practical tenets, and consider them very judicious and correct. The "Notes on Cholera" are evidently the production of a man of reading and observation, though the style is too frequently digressive and diffuse: in our opinion, they are highly deserving the attentive perusal of those who design to practise in the East Indies.

## COLLECTANEA.

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Floriferis ut apes in saltibus omnia libant,  
Omnia nos, itidem, depascimur aurea dicta.

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## PATHOLOGY.

*Cow-Pox produced from Grease in the Horse.*—Professor BERNDT has related the case, in HUFELAND's Journal, of a stable boy, who had neither been vaccinated nor had the small-pox. After dressing a horse affected with the disease known under the name of "Eaux aux Jambes," he had vaccine pustules in the hands. Several persons were inoculated with matter taken from these vesicles, and the true vaccine disease was produced. No effect was caused in those who had previously had either the vaccine or variolous disease.—*Bull. des Sciences Med.*

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*Anomalous Vision.*—A child, seven years of age, the son of a distinguished artist, had just begun to receive instructions in drawing. To the astonishment of his father, he represented every object in an inverted position. If he drew a candle and candlestick, the former was placed downwards, the latter in the air. It was the same with chairs and tables, the legs were always placed upwards. The child was suspected of obstinacy and bad temper, and punishment was inflicted. He declared, however, that he represented every object in the position in which he saw them; and, as in every other respect they were very accurately sketched, he was at length believed. If the object he was about to draw was turned before it was given to him, he then represented it in its natural position; from which it was evident that the sensations communicated to the eye corresponded with the inversion formed upon the retina. This state of vision continued upwards of a year. From the age of eight years, the child saw objects in their natural position.

Cases analogous, if not precisely similar to this, have been before observed. Thus, a man saw every object in an inverted position for a considerable time. Houses appeared to him to rest upon their roofs, men to walk upon their heads, &c. This aberration of sight was produced by derangement of the digestive organs, and ceased with the cause which gave rise to it. Dr. WOLLASTON, after violent exercise of body and mind, suddenly found that he could only see half the figures of persons whom he met, or of any other object presented to him. Dr. CRAWFORD relates the case of a woman, who was attacked with a slight paralytic affection of the left side, after which she could only see the right half of objects; and, although she recovered the use of her limbs, her vision remained defective.—*Journ. Univ. des Sc. Med.*

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*Suffocation caused by a Leech in the Larynx.*—A soldier suddenly experienced the usual symptoms of suffocation. His face was red and swollen, froth issued from his mouth, his eyes were directed upwards, and his breathing was nearly suspended. For a short time these symptoms abated, but quickly returned. As there were no signs of apoplexy, and the respiration alone appeared affected, it was suspected that there must be some foreign body in the air-passages, and the operation of laryngotomy was resolved upon. The patient, however, suddenly expired in a paroxysm of suffocation. Upon

opening the body, a leech was found in the larynx. It adhered so tenaciously to the part, that it was removed with difficulty. The glottis had been obstructed by the presence of the animal, and the admission of air was thus rendered impossible.—*Ibid.*

*Hydatids in the Female Breast, resembling a Scirrhus Tumor.*—A robust young female, twenty-five years of age, complained of pains in the left breast, which at first had been confined to one point, but had subsequently extended, and became intensely severe. A hard tumor, of a shining appearance, about the size of a hen's egg, was found in the part. It was divided into several lobes, and resembled a deep-seated scirrhus. The precise nature of it, however, could hardly be determined, from the immense size of the breast. Various means were ineffectually tried to discuss the swelling, and, as the sufferings of the patient were intolerable, an operation was determined upon. The mammary gland was perfectly healthy, but beneath the pectoral muscle a cavity was discovered, filled with round bodies as white as snow. They were found to be hydatids; three of which were about the size of a nut, and seven much smaller. Most of them escaped freely through the wound. They were of a spherical form, and covered with a shining solid membrane of a white colour. The parietes of the cavity in which they had been contained were smooth, and resembled a serous membrane. To promote adhesive inflammation, lint was introduced into the wound. For a long time an ichorous fluid was discharged, and stimulating injections of nitric acid and mercury were found necessary to produce adhesion of the parts. The patient was cured in about two months from the operation.—*Clinique des Hopitaux.*

*Curious Cerebral Affection in four Brothers and Sisters.*—A woman in Norway was delivered, in 1801, of a healthy male child. He had very good health from the time of his birth, until about the seventh year. At that period his sight failed him more and more; his intellectual faculties and sensibility equally diminished; and, in the course of the ninth year, he became nearly blind, and perfectly insensible to external impressions: the sense of hearing appeared to be preserved the longest. Between the ninth and fourteenth year, he was attacked with epileptic fits, which became gradually more and more violent. At the age of fifteen, he was subject to frequent agitations, and uttered dreadful cries. He remained in this state until the age of twenty-one, when he died.

His sister, born some years after him, presented the same phenomena precisely at the same age. She had no menstrual discharge, and died at the age of twenty.

A few years after the birth of the last, the mother was delivered of a male infant, which, when he had attained his seventeenth year, was attacked with the same disease. At the time this account was written, he was between sixteen and seventeen years old, and in the same state of suffering which occasioned the premature end of his brother and sister.

At length a fourth, a female infant, of four years old, was sent to its relations living in a different quarter, under the fear that the metallic mines which are at Roeras might have some influence in the production of these distressing symptoms. This child enjoyed very good health until the age of seven

years; but at this fatal period, the same phenomena observed in the three former were manifest, and, it is to be feared, will have the same melancholy termination.—*Bulletin des Sc. Med.*

*Hæmoptysis.*—If we inquire in what manner hæmoptysis from a ruptured blood-vessel can be occasioned by muscular exertion, it will be replied, that these causes increasing violently the action of the heart, a volume of blood is in consequence determined into the vessels of the lungs with a force sufficient to produce in their coats a solution of continuity. That this is the doctrine of the books will be perceived by a reference to CULLEN, p. 734 to 774 inclusive, and to GOOD'S Study of Medicine, vol. iii. p. 175. Hæmoptysis from the rupture of a vessel is certainly not impossible: but we agree with Dr. GREGORY,\* and Dr. CONDIE,† that it is of rare occurrence. The belief that the hemorrhage depends upon the rupture of a blood-vessel, the size of which is not unusually estimated by the quantity of blood discharged, not unfrequently paralyses the efforts of the practitioner, by leading him to suppose that the case is hopeless. The subject is, therefore, worthy a moment's consideration.

It is now satisfactorily ascertained that the vessels of a part, when labouring under irritation, have the power of exhaling blood, in the same manner they do serum or other fluids, and probably to as great an extent. In this manner very copious discharges of blood are sometimes thrown from the stomach in cases of hæmatemesis, in which disease the rupture of any particular artery is as uncommon as in hemorrhagic discharges from the lungs. In hæmoptysis the hemorrhage generally proceeds from the mucous membrane of the trachea or bronchia, a situation at which rupture of a blood-vessel very rarely, if ever, takes place. The cases of hæmoptysis upon record, presumed to have arisen from rupture, are very equivocal; the presumed source of the blood not being established by the appearances met with on dissection. In many instances, indeed, in which a fatal result has occurred, in cases succeeding almost immediately to some violent muscular exertion, the most accurate post-mortem examinations have shown that no rupture of any vessels in the lungs had taken place.‡ I have opened, observes BICHAT, a great number of subjects who have died during hemorrhage from the lungs, and, on examination of the bronchial surfaces, could never discover the least trace of erosion or rupture of the vessels, notwithstanding I have taken care to wash carefully these surfaces, to allow them to macerate, and to examine them with the glass. M. ANDRAL, who has recently, in the course of his observations upon pulmonary tubercles, paid much attention to the morbid appearances in the lungs of those who have died during hæmoptysis, confirms the statement of Bichat. He was able in no instance to recognise any other source of the hemorrhage than the surface of the mucous membrane of the bronchia. Excepting in those cases in which the hemorrhage was complicated with tubercles, the bronchial membrane presented the same appearances as in simple bronchitis. In some instances it was pale, or at most presented but a slight-coloured rose tint.

MORGAGNI mentions the appearances he met with after death, in cases of

\* Elements of the Practice of Physic, second edition, p. 312.

† Condie on Hæmoptysis, North American Medical and Surgical Journal.

‡ An interesting case of this kind is related by BAUMES, in his Dissertation de Hæmoptoe. 1748.

hæmoptysis, to be engorgement of the lungs and tubercles, in the neighbourhood of which the vessels were dilated.

PORTAL relates the case of a young man that had laboured under hæmoptysis for many weeks, in whom the lungs, after death, were found to be perfectly sound, but the bronchial glands were engorged and covered with vessels greatly dilated, many of which terminated by open extremities in the cavity of the bronchia.

According to LAENNEC, two varieties only of hæmoptysis can arise from rupture of the blood-vessels. The first when an aneurism bursts into the trachea or bronchia, and the second when there is a rupture of a vessel into a tuberculous excavation. These two species of hemorrhage are, however, followed by almost immediate death, and can by no means explain the phenomena of a disease of so common occurrence as hæmoptysis.

Of hæmoptysis from ulceration of the lungs, we can say but little, morbid anatomy having presented us with but few direct facts upon this point. We may remark, that in those cases of hemorrhage from the lungs complicated with phthisis, which have been generally supposed to depend upon ulceration, the blood has been found, upon dissection, to have been effused from the mucous membrane of the bronchia, and not from the ulcerated portion of the lungs.

When we consider the causes and symptoms of hæmoptysis, the plan of treatment by which it is most effectually controlled, as well as the appearances discoverable after death, we are irresistibly compelled to view the disease as dependant upon an irritation of the mucous coat of the lower portion of the trachea, or of the bronchia, in consequence of which irritation its vessels are induced to take on a hemorrhagic action. By Laennec is described a species of violent and extensive hæmoptysis, or (as he terms it) pulmonary apoplexy, which he presumes to arise from an effusion of blood into the parenchyma, or the air-cells of the lungs.

Examinations after death present an exactly circumscribed induration of some portion of the lungs, of a very dark red colour. When cut into, the incised surfaces appear granulated; and, when scraped, there is detached from them a small portion of very dark half-coagulated blood.

Hæmoptysis is seldom dangerous from the mere discharge itself, but from its being connected with, or preceding, some organic lesion of the lungs.

#### PRACTICAL MEDICINE.

*Case of Gout*; by M. MESTIVIER, Membre de l'Academie.—Gouty affections conceal themselves under so many different forms, that it is often very difficult for the most experienced physician to follow them through all their modifications. M. Mestivier has had the advantage of many years' practice in a country where gout is almost endemic, and the following case he adduces as a very curious one:

The Prince of Wagram, upwards of sixty years of age, of a bilious and sanguineous temperament, strong constitution, had for a long time been subject, as autumn came on, to attacks of gout, which increased in violence after each attack. The seat of the disease generally was in the feet. The year preceding the campaign of Moscow, the Prince had the severest attack he had ever had: it was necessary to have recourse to bleeding to reduce the inflammatory action: this had the effect, and the attack gradually declined, and went away in fifteen or twenty days.

In the campaign of 1812, the Prince, from the pressure of circumstances, was exposed to great fatigue, and obliged to use a great deal of exercise, and to this cause perhaps he owed an exemption from his usual attack. However, the privations he had suffered, and the influence of climate, visibly affected his health, and it was with some difficulty he reached Posen, where he was obliged to lay up in bed. M. Mestivier was called to see him, and found him suffering intensely; his face, and every part of the body, was of a deep yellow; his look sad and uneasy; lips dry and without colour; tongue a little moist, but covered with a thick yellow coating; great thirst; frequent hiccup on drinking; respiration short and oppressed; no cough or palpitations. The epigastric region, which the patient would not suffer to be touched, presented nothing particular, but within twenty-four hours it had become the seat of so acute a pain that the weight even of the shirt was insupportable. This pain, which the patient compared to a toothache, stretched over towards the right hypochondrium; the abdomen was soft to the feel, but sluggish in its action. For the last three days there had been no evacuation, although some gentle aperients had been used; the urine was scanty, red, and deposited a brick-coloured stuff, adhering to the vessel. Pulse was small, compressed, very quick, but regular.

Taking all the symptoms into account, the case was considered as one of gall-stones passing through the biliary canals. Ol. Ricini, and a smart cathartic enema, were prescribed. The oil was rejected, but from the other means there was so copious an alvine discharge that the patient fainted. No advantage accrued from this; the case became serious, the danger augmenting every hour.

It was now suspected that it might be a case of erratic gout, and warm irritating baths and sinapisms were ordered to the feet. He passed a sleepless night. The next day there was no amendment, and the patient was very low. A blister was applied to the epigastrium. Four hours after the application of the blister, the feet were examined: the left was reddened from the effects of the means used, but not in the least painful; the right, on the contrary, was much swollen, red, and excessively painful, and having a well characterised fit of gout. From this time the other and alarming symptoms gave way, and in a fortnight the Prince was completely recovered.

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*Critical Remarks on the Use of the Sulphate of Quinia, or Quinquina, in the Treatment of Fevers; by M. VULPÈS, of Naples.*—M. V. gives the preference to the sulphate of quinia in intermittents, suborbital neuralgia, dyspepsia, &c.; while the quinquina in substance is preferable in the fevers considered by the ancients as putrid, and which are produced by sedative miasmata exhaled from individuals crowded in a small and ill-ventilated space. The author, a partisan of the Italian doctrine, distinguishes that fever called prison or hospital fever from contagious typhoid fevers, such as febris petechialis-flavar, which are by him considered as inflammatory fevers; and it is on this fact that he rests his opinion.

In the month of March, 1825, it happened that there was so great a crowd of patients at a Maison de Fous, that they were constrained to lodge them in a convent, which was unprepared for their reception. The filthiest among them were shut up in a confined dormitory, which was in a remarkably nasty state. Very speedily fever made its appearance, and which was first looked



upon as petechial, and treated antiphlogistically. The disease made rapid progress, and became very fatal. The sulphate of quinia was then employed, which exasperated all the symptoms. The quinquina in substance was next used, and with the happiest effects: it was administered to the amount of half an ounce daily.

The way in which M. Vulpès explains this is, by considering the quinquina as a remedy not antifebrile, but antispasmodic. It has no effect on the fever, but it acts against that unknown state of the habit producing the periodical return of the paroxysms. It is besides tonic. When fever is the result of inflammation, the quinquina will have no effect. When pain arises from the simple reaction of the habit against deleterious substances, which tend to weaken vitality in altering the humors, as in the case above cited, the quinquina, then, in substance should be given, and the sulphate of quinia would not do instead of it: the quinquina in substance acting as an antiseptic, the sulphate of quinia having no such properties. In fever from marsh miasmata, either form is good; the sulphate of quinia having, however, the preference, from the stomach being more likely to receive it without disgust.

M. Vulpès denies that these fevers ever depend on internal phlegmasiæ: it may chance that partial inflammations develop themselves during the course of these fevers, but that is only a symptom, and calls for local antiphlogistic treatment, as much as the general state of the patient calls for the use of tonics and the specific, the bark.

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*Chlorine in Chronic Affections of the Lungs.*—A bleaching establishment having been removed into a situation notoriously damp, and where catarrhal affections were extremely common, M. BOURGEOIS was not a little surprised to observe that those employed in this establishment were less liable to these attacks than their neighbours. As chlorine is much used in such establishments, he attributed to it the preventive influence. It chanced that two people, one with chronic catarrh resembling phthisis, and the other with a vomica in the lungs, were perfectly cured after two or three months' residence in this bleachery.

This substance (chlorine) has been used medicinally by LAENNEC at La Charité, and he considered it as meriting further trial. In its administration, M. B. would prefer its being disengaged from a mixture of peroxide of manganese and by the chloric acid, and mixed with the atmospheric air, and not inhaled by itself.

This agent has also been tried by MM. Louer, Villermay, Husson, Chomel, and Kergaradec, and, although without any decided success, they consider it as likely to be sometimes an useful addition to our remedial measures in phthisis.

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*Case of Chronic Headache, successfully treated with Fowler's Arsenical Solution.*—DR. OTTO relates the following case:

Y. K., at the age of eleven years, was attacked, without any assignable cause, with violent headache that came on daily. His constitution was good, and with this exception he had been unusually healthy through life. When I first saw him (March 1819) it had continued three years, and had been gradually progressing in violence, but he thought he suffered rather most in summer. There had been no respite to the complaint, except during a few days when he was taking emetics. The paroxysms did not return at the same

hour, and could be brought on at any time by exposure to the sun, over exertion, putting on a tight hat, or by any thing that bound his head considerably, which was rather disproportionably large. Ultimately the attacks lasted several hours, but varied a good deal both as to violence and duration, and were never accompanied by nausea or fever, nor seemed to depend on any thing that had been eaten. The pain was not confined to a small part, as is very often the case in periodical headache arising from intermittent fever, nor, like hemicrania, did it occupy one side of the head: the forehead suffered most and was generally warm, but no part was entirely exempt from pain. He had taken very little medicine; for a physician of eminence, in the part of the country from which the family had lately removed, gave an assurance that it would be to no purpose, and great reliance was placed on his opinion. The parents were unwilling to have recourse to any thing painful, or even disagreeable, without a prospect of benefit. During two years the child continued at school, but afterwards he was obliged to lay aside his studies.

His case was stated to me while in attendance on his brother. I represented to them the impropriety of abandoning him to the operation of nature, which had been of no service, and that it was time enough to despair of relief when the resources of medicine had been fairly tried, and failed. Upon their consenting to his becoming my patient, I directed five drops of Fowler's solution of arsenic to be given him three times a day. This treatment was continued two weeks without any improvement in his complaint; nor was any nausea, griping, or swelling of the eyelids or face, produced. A day or two afterwards, without his taking any other medicine, he ceased to be attacked; nor was there any subsequent return of the disease for two years, when the patient removed to a distant part of the country to live, and I have not heard from him since. He was directed to be particular to avoid all exciting causes, to keep his bowels open, and to use but little animal food.

As the good effects of medicine are not always immediate, I am induced to think that the arsenical solution ought to be considered as having been instrumental in relieving him.—*North American Med. and Surg. Journal.*

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*Deafness cured by Electricity.*—A girl, eight years of age, lost the power of hearing and speaking, during the course of an acute disease under which she laboured. Electricity was applied both by shocks and sparks, which were directed as much as possible to the affected organs. So complete had been the deafness, that she could not hear a pistol discharged close to her head. Under the influence of the electricity, however, she soon recovered her hearing. She had not regained her speech when the case was reported.—*Russ's Magazine.*

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*Herpes cured by Diet and Mercurials.*—A child, four years of age, was covered from head to foot with a scaly eruption; his health was also much impaired. He suffered so much from a troublesome itching of the whole body that he was with difficulty restrained from injuring himself by scratching. All the ordinary methods of treatment having failed, it was determined to try the effects of abstinence, which has been so much extolled by the German physicians. The patient was consequently confined to a very severe regimen, without, however, being entirely deprived of food. Mercurial fric-

tions; with the Neapolitan ointment, were also frequently used. He was quickly and completely cured. The success is attributed more to the strict diet enforced than to the frictions.—*Ibid.*

*Contraction of the Œsophagus relieved by the internal Administration of Sal Ammoniac.*—A man, who had previously enjoyed a good state of health, was attacked in the following manner: He could swallow without much inconvenience both solid and liquid food, but, in about ten seconds afterwards, the former returned from the stomach into the pharynx, and he was incapable of swallowing the mass a second time without much torture, which increased every day. This kind of rumination did not occur with liquids. The patient was pale, and of a melancholic countenance. Upon attentively watching him during the act of eating, it was perceived that the mass did not pass into the stomach upon the first deglutition, as he imagined, but that it remained for some time near the cardiac extremity of the *œsophagus*, and that his distress was caused by its subsequent passage into the stomach. If the portion of food was very small and well masticated, he suffered but little. He described the pain he felt as if there was a wound in the passage, which was irritated by the food that passed over it.

M. PAGENSTECHEER conceived that it was a case of inflammatory contraction of the *œsophagus*, near the cardiac orifice. Leeches were applied, and a decoction of marshmallows and nitre was prescribed. Liquids only were taken. The patient was not relieved, and he was in danger of dying from hunger.

It was now determined to employ the sal ammoniac, which had been so strongly recommended by FISCHER, of Dresden, in such cases. Two drachms of it were mixed in two ounces of syrup of marshmallows, and an equal quantity of confection of elder. Half a spoonful was taken every two hours. The patient was informed of the slightly corrosive nature of the remedy. On the next day he was much relieved. The medicine caused a trifling burning sensation. He could swallow fluids without any difficulty. His amendment was progressive, and in ten days he was entirely cured. The sal ammoniac was continued for some weeks, the dose of it being gradually diminished.

A second case is related, in which the same success was obtained from similar treatment.—VON HUFELAND's *Journal*.

## SURGERY.

*Removal of the Tonsils.*—The frequent occurrence of the disease requiring the operation of removing the tonsils, should be deemed a sufficient apology for calling the attention of the profession to a subject apparently so simple in itself, and which is rendered still more so from the various improvements suggested by the surgeons of this country, as well as by those of Europe.

Of late years, the removal of the tonsils by the canula and silver wire was considered the only safe and practicable mode of removing those glands. The mode of operating was by means of a double canula, from three or four inches in length, armed with a silver wire; the latter to be placed round the tumor, and to be drawn with a degree of tightness requisite to strangle the part enclosed, and the wire to be tightened from time to time, until the part

dropped off; which generally was accomplished within four or five days. To Dr. PHYSICK the credit is due of shortening the suffering of the patient, by removing the wire after the first twenty-four hours, leaving the slough to separate by the process of nature; and by substituting an iron wire instead of silver, which is more readily disengaged from its attachments: but even with these improvements the patients suffered much, not only from the pain of the application, but from the inflammation and fever which is attendant upon this mode of operating. All other modifications of this plan are very unimportant. Having had an opportunity, during my late residence in France, of frequently witnessing the successful removal of the tonsils by the knife, and having, since my return, performed that operation in six instances with the same favorable results, I avail myself of the opportunity afforded me, through the medium of this Journal, to call the attention of the profession to the manner of conducting this operation, and the advantages it possesses over every other mode of removing the diseased tonsils. Nothing more is necessary than to pass a hook through the body of the enlarged gland, and to raise it from its bed between the arches of the palate; then to pass a probe-pointed bistoury under its base, and with one stroke to sever it from its connexion. The hemorrhage never exceeds two ounces, and is always to be arrested by a draught of cold water.

The following case is illustrative of the advantages which this mode has over all others before mentioned:

A young lady, fourteen years old, suffered great inconvenience for a long time from an enlargement of both tonsils. Dr. BROWN, the attending physician, consulted me as to the practicability of removing the tonsil of the opposite side by means of the knife: to this there could be no objection. Having assured her that it would be attended with a momentary pain, and that very inconsiderable compared with what she had experienced, she consented to the operation. It was performed in the short space of half a minute. The patient instantly declared that the pain bore no comparison to her sufferings caused by the operation recommended by Dr. Physick; nor afterwards did she experience the least inconvenience; even the next day she was enabled to walk out for pleasure.

The objection usually advanced to this practice arises from an erroneous idea as to the vascularity of the tonsil, and the hemorrhage to be apprehended. Referring to the vessels of the throat and posterior nares, we find that the artery which nourishes the tonsil is so indirect in its origin as to have the force of the circulation expended before it reaches its destination, being a branch of the third branch of the facial, which again is the third branch of the external carotid, making in all no less than six branches. Under these circumstances, hemorrhage to any great extent is certainly not to be expected. The facts, too, on this subject are so numerous as to banish all apprehensions of danger from this source.—Dr. HOSACK in the *American Journal of Medical Sciences*.

## INTELLIGENCE.

### MONTHLY REPORT OF PREVALENT DISEASES.

NOTWITHSTANDING the variable state of the weather throughout the whole of the last month, no serious disease has prevailed. Cholera has not been unfrequent: it has been mild in its attack, and of short duration, in all the cases we have seen. Slight bronchial affections have also been common. Asthmatic patients have suffered severely, as might be expected from the dense state of the atmosphere. An interesting case of complete paralysis of the lower extremities of a child has occurred to us. The digestive organs were much deranged, and in about ten days after active purgatives had been given the little patient was completely restored to health. In one case of inflammation of the bowels, the benefit of full doses of opium, after free bleedings, was clearly shewn.

*Royal College of Surgeons.*—Sir ANTHONY CARLISLE has been elected President; H. L. THOMAS, Esq. and Sir P. M'GREGOR, Vice-Presidents; and J. BRIGGS, Esq. a member of the Council.

Mr. GUTHRIE is appointed Professor of Human Anatomy and Surgery, and Mr. HERBERT MAYO Professor of Comparative Anatomy.

We have to announce, with very sincere regret, the death of Sir P. M'GREGOR, Serjeant-Surgeon to the King, &c. &c. But a few days before his decease, he had been elected Vice-President of the Royal College of Surgeons. Eulogies are not uncommonly lavished upon the dead, as a mere matter of form; but of Sir Patrick M'Gregor it may be said, with the strictest truth, that he was universally respected, as well by the public as by his professional brethren.

*Literary Notice.*—We have received the third edition of Dr. GREGORY's "Elements of the Theory and Practice of Physic." The whole has been carefully revised. Several topics, unnoticed in the preceding editions, have been introduced, as Delirium Tremens, Paralysis Agitans, Cachexia Africana, Hepotalgia, &c. In 1826, this work was published at Philadelphia, with very copious notes and additions by Professor POTTER, which have been incorporated with the present edition by Dr. GREGORY. We have before stated our favorable opinion of the work. It is decidedly the best on the subject in the English language.

*Mr. BROOKES's Museum.*—THE sale of this splendid collection is still continuing, and many of the choicest anatomical preparations, and specimens of morbid anatomy and natural history, are yet to be disposed of. Those anatomical preparations which were known to have been dissected by Mr. BROOKES have been eagerly sought after, and have generally brought high prices. Mr. CLIFF has been a constant attendant, and the College of Surgeons has purchased freely and liberally. A very spirited competition took place for the skeleton of the Peruvian Paco, a most beautiful animal, between the College and Mr. TEMMINCK, who has been sent over expressly for the purpose of enriching his national collections, by the Dutch government. It

was sold to the College for thirty pounds. It is said to be the only skeleton of this animal in Europe. The Chilian Lama, presented to Mr. BROOKES by Lord DARNLEY, produced twenty-six guineas. This lot was also bought by the College.

With every true lover of his profession and of science in general, it must be a subject of deep regret that the value and interest of *such* a collection should be diminished by separation. Many reports have been circulated of handsome offers having been made for the whole museum, on the part of government and different universities. They are, however, without foundation. We know, from the best authority, that no attempt even has been made to secure this invaluable collection as a national museum, or to promote the cause of science by attaching it to any university.

*To the Editor of the London Medical and Physical Journal.*

SIR,—It has been recently much the fashion to decry, for party purposes, the education which the English Universities require for their graduates in medicine.

After the same education which is demanded from persons qualifying for the learned professions, as the church or the bar, a sufficient time elapses before the first medical degree is conferred, to enable them to acquire (with powers of mind reasonably believed to be improved by such previous education,) medical science at any of the universities on the continent, or in Edinburgh or in London, as they please. The test of their proficiency is an examination, without passing which they are not admitted to their first degree in medicine; a degree, be it observed, which does not even authorise practice until a licence is given *ad practicandum*, and which is wholly unavailing in London until the possessor of it has been examined and licensed by the London College.

The following are the questions set to the candidates for the degree of B.M. in the University of Cambridge, in June last. The public will judge whether such an examination is inferior to any in Europe in difficulty, and whether persons answering them fully on paper are not qualified for admission to their first degree.

I am, sir, your obedient servant,

VERAX.

*Examination for M.B. Degree. 1828.*

No. I.

1. Describe the Cæliac Artery, its branches, and their distribution.
2. What are the branches of the External Carotid Artery?
3. Describe the Sinus' of the Brain, their form, situation, and structure.
4. Describe the origin, course, and distribution of the Par Vagus.
5. What are the Nerves distributed to the muscles of the face? What is the difference in function attributed to the fifth and seventh pair?
6. Describe the Pericardium, its situation, attachments, structure and use.
7. Describe the Omentum, its form, attachments, and position. What is meant by the small Omentum?
8. Describe the Duodenum, its position, attachments, and structure.
9. What are the changes which the Blood and Air undergo in respiration? Is the Circulation assisted by atmospheric pressure?
10. What is the chemical composition of Bile? What purpose does this fluid serve in the animal economy?
11. For translation, Aphorisms from Hippocrates.

## No. II.

1. What are the morbid appearances found on the dissection of persons who have died from Apoplexy?

2. Explain the Pathology of Dropsy. In what cases is bleeding to be recommended in this disease?

3. In what stage of Measles does diarrhœa usually occur?

4. What remedy does Sydenham recommend in the diarrhœa supervening on Gout?

5. What is the distinction between erythematous and phlegmonous Inflammation?

6. What are the symptoms and treatment of Tetanus?

7. In what class and order of Cullen's Nosology is Dyspepsia placed?

8. How do we distinguish Pleurisy and Peripneumony?

9. What are the symptoms and treatment of Cholera Morbus? How do we distinguish this disease from the effects of the swallowing of arsenic? What are the best tests of the presence of the arsenious acid?

10. What are the mode of preparation, the dose, and the medicinal powers of the Bismuthi Subnitras?

How is the liquor Ammonix prepared? What are the medical virtues and dose of this preparation? What is the chemical composition of Ammonia? What is its equivalent number?

How is the Acetas Plumbi prepared? What are the medical virtues and dose of this preparation?

What is the formula for the liquor Plumbi Subacetatis dilutus?

What is the mode of preparation and dose of the Infusi Digitalis? With what medicines is it incompatible?

To what class and order of Linnæus does Digitalis belong? To what natural order?

11. For translation, a passage from Celsus.

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THE COLLEGE OF PHYSICIANS v. HARRISON.

WE are indebted to a friend for the short-hand writer's report of this important Trial, which has been procured at considerable expence: we are thus enabled to give a much more correct account of it than has yet been published. The opening speech of Sir J. SCARLETT, and Mr. CAMPBELL's defence, are copied verbatim. We have passed over the recapitulation of the evidence contained in the summing-up of Lord TENTERDEN; and, as a considerable portion of the evidence itself is not much *ad punctum*, we have taken only the substance of it. The whole of the correspondence between Dr. HARRISON and Dr. CHAMBERS, and the College of Physicians, has already been given in our Journal.\*

*Court of King's Bench, Westminster, July 3, 1828.*

*Before the Right Hon. Lord TENTERDEN, and a Special Jury.*

Mr. PARKE opened the pleadings.

Sir JAMES SCARLETT.—May it please your Lordship; Gentlemen of the Jury; This is an action brought by the President and Fellows of the College of Physicians, for the purpose of enforcing a regulation made by a statute as

\* Vide Number for July 1827, p. 85 et seq., and October Number, p. 375 et seq.

early as the time of Henry VIII., and which is incorporated in their charter, for the purpose of preventing persons who have not been duly licensed, by the College from practising in London, or within seven miles of it.

Gentlemen, it is quite unnecessary that, in enforcing a penalty of this sort, I should enter before you into a discussion of the policy of it, because the only question will be whether, in point of law, the College of Physicians have a right to enforce that penalty. Whether or not it was expedient in King Henry VIII. to grant a charter to the College of Physicians,—whether or not it was right for Parliament to confirm that charter, which they did some time in the reign of the same king,—are questions with which we have nothing to do. I am more desirous of saying this in the outset, because, in the course of my experience in this place, I have several times had occasion to observe that very often the attention of juries is misled, and very often an attempt is made to mislead the attention of judges, from what is the real law of the land to what is the policy of the law, with which in this case we have really nothing to do. I shall, therefore, not occupy any time in vindicating that policy by which the Parliament attempted, in the time of King Henry VIII., to prevent the public from becoming a prey to empirics and quacks, who were not duly qualified to practise the science of physic. Whether the gentleman who is the defendant in this case is highly gifted in his profession, or whether he is deficient in the qualities which are necessary to practise that profession, highly useful and highly honourable as it is, is not the subject of inquiry; for every one must feel that, if the College of Physicians should relax from their duties and the observance of their rules, out of respect to any individual, however highly gifted, it would follow they would expose themselves to the charge of the grossest partiality, and it would be said of them, and with justice, that they make selections, and allow persons to practise from favor and interest, preventing others, and that the mode of accomplishing the objects of this statute, which was undoubtedly to prevent persons not wanting skill from practising, was to enforce the rules generally against all. The rule is, that no person shall be permitted to practise in London, or within seven miles of it, unless he shall be examined by the College of Physicians, according to the regulations they make, and found by them competent to practise. There are certain exceptions made, which do not affect this question, in favor of the graduates of the English Universities. Those exceptions relate to practising at a greater distance from the metropolis, and have nothing to do with this question; but, with regard to the case now before you, it turns upon the charter of the College, confirmed by the act of Parliament, which declares it shall not be lawful for any man to practise physic in the metropolis, or within seven miles of it, unless he shall previously submit to an examination by the College, and receive a certificate under their seal for that purpose.

Gentlemen, Dr. Harrison, the defendant, has for some time been, as we are informed, practising as a physician. I should have stated to you that the charter requires that the practice should be for one month,—that is to say, he should be in practice for one month,—because an occasional advice to a friend, or a prescription which a gentleman gives who comes from the country, would not be considered a violation of this statute; and, therefore, the regulation requires that a person should practise for one month,—that is, that he should not practise every day for a month, but should hold himself out and practise as a physician for a month. The time that is necessary for enforcing the penalty throws very often some difficulty in the way of the proof, because, as a physician practises amongst his own particular class of patients, it is not always, nor is it often possible, to discover among them a disposition to communicate evidence with respect to his practice.

It so happened that a considerable time ago—a year or more ago—a member of the College of Physicians had occasion to observe Dr. Harrison in practice, and some correspondence took place between them in consequence of that; because, gentlemen, in obedience to a bye-law of the College, refusing to consult with him as a physician because he was not licensed,—not out of any disrespect to Dr. Harrison, but because every physician is liable to a



fine, by the bye-law, if he consults with any one who is not licensed by the College. That produced an anxiety on the part of Dr. Harrison to meet the question fairly. He directed a letter to the College, in which he states an objection upon the act of Parliament, which is founded upon a mistake, for want of advice; because I am sure his learned counsel will not insist upon it, as his objection upon the act of Parliament is a frivolous objection; for he says there are no censors. They do not want censors; and therefore the objection is a frivolous objection, and shews the Doctor is ignorant of the law more than of his own profession. But, when the Doctor was desirous of undertaking this contest, it became necessary for the College to meet this gentleman, and he was summoned to attend them. He declined to attend; but avowed his intention of meeting them fairly in a court of justice. It was then necessary to inquire what evidence there was that he had practised for a month; and the Doctor wrote a letter, which I will read to you, addressed to the College of Physicians, in reply to their last requisition that he should attend at their board, and be licensed, if found duly qualified.

Dr. Harrison's letter (No. 8,) to the Censors of the College was read.

Well, gentlemen, upon that letter being received, it was thought that the plaintiffs could do no less than apply to Messrs. Tennant and Harrison, to know whether they would admit that the Doctor practised for a month, in order to raise the question. They took time to consider, and then returned for answer they could make no such admission; so that this profession which the Doctor made that he would discuss the matter fairly, was defeated by the caution of his solicitors.—I will not say, prompted by him, but by the usual caution of lawyers, who will not admit any thing; and therefore the College were obliged to procure evidence to put this matter fairly at issue. They have done that. They would have been better pleased if the Doctor had made a fair admission; but, finding he would not do so, in order to gratify him in raising the question, they have sought for other evidence, and that evidence will be produced to you. I need not state the evidence; but I think we have prescriptions from the month of April to the month of November, 1827. I do not mean to enter into any critical discussion of the nature of the prescriptions; that is not for you to decide; and therefore I shall say nothing about that. They are sufficient to show the Doctor prescribed as a physician; and this letter, and others, will shew that he avowed that he prescribed as a physician; and I believe I can shew that one lady, whom he attended for one or two years,—for the Doctor does not pursue his profession without profit;—I can shew that he received in the course of two years 500 guineas, and therefore he could not say that he practised gratuitously; but he is strictly within the definition of a physician practising for emolument, which he has a right to do by the law of the land. Now, gentlemen, I do not put in issue the fitness or propriety of Dr. Harrison; that is not the issue; and I should be extremely sorry to cast any reflection upon that gentleman. I do not put it upon that ground. The question must be treated in the same way as if it was Sir Henry Hallford who refused to submit to the regulations of the College, or if it was the veriest quack, Dr. Solomon or Dr. Brodum; and therefore those are not the questions. Those would be the questions if they came to be examined. It certainly might be a presumption, though I do not press that against this gentleman, that when he refuses to submit himself to the examination of impartial and competent men, that it is a presumption against his competency.

Gentlemen, I shall put in this act of Parliament, which is known to his lordship being upon the statute-book. It contains the charter, and embodies the whole of it, and his lordship will recollect that was recognised in Bonham's case, which was tried before the Court of Common Pleas, in the time of Lord Coke, and therefore there will be no question about that. We shall produce evidence to shew he has practised for a month, and we shall be entitled to ask of you the penalty of five pounds for each month.

*Evidence for the Plaintiffs.*

Dr. TURNER was sworn. His evidence was objected to by Mr. Campbell, who "apprehended he had a clear interest in the event of the suit," as he was a Fellow and the Treasurer of the College of Physicians.

Sir James Scarlett replied, that "this was the first specimen of a fair discussion of the question." The evidence of Dr. Turner was not continued.

Mr. J. ROBERTS, clerk to the College, produced the charter of the 10th of Henry VIII.

*Mr. Brougham.*—Your lordship will find it is set forth in the preamble of the statute.

*Lord Tenterden.*—Is it set forth word for word in the act of Parliament?

*Mr. Brougham.*—Yes, my lord.

*Lord Tenterden.*—It is set forth verbatim in the act of Parliament.

*Mr. Campbell.*—At present, my lord, I do not allow that it is an act of Parliament.

*Lord Tenterden.*—That is a question that will be more fitly discussed in another Court.

*Mr. Campbell.*—My lord, I submit it must be discussed here.

*Lord Tenterden.*—Am I not doing better for you by reserving the point?

*Mr. Campbell.*—My lord, unless my friends produce better evidence of an act of Parliament than the existence of an act in an edition of the statutes, I shall submit the plaintiffs must be nonsuited.

*Lord Tenterden.*—Do I not do better for you by reserving the point?

*Mr. Campbell.*—I should wish your lordship to direct the plaintiff to be nonsuited.

*Lord Tenterden.*—Prima facie, a statute being to be found is evidence that it passed.

*Mr. Campbell.*—My lord, I should submit, if it had the royal assent, I should say this was no evidence; and, unless there be a copy produced from the Parliament rolls, this important allegation in the declaration is not proved.

*Lord Tenterden.*—Then we will read the charter.

*Mr. Campbell.*—To facilitate the progress of the cause, there is no objection to reading it as from a copy.

*Sir J. Scarlett.*—The assumption here is, that it is a private act of Parliament. That is the assumption of my friend.

*Lord Tenterden.*—I will listen to any argument with great pleasure, Mr. Campbell; but you must be sensible the question whether a document purporting to be a statute, be or be not an act of Parliament, and be or be not a private act of Parliament, is a point of much too great importance for a single judge to decide.

*Mr. Campbell.*—If the judge entertains doubt upon it, undoubtedly; but I trust, with the assistance of my friend Mr. Armstrong, I shall be able to remove any doubt your lordship may entertain upon it.

*Lord Tenterden.*—But I think you can hardly suppose any decision I come to will be satisfactory. Whichever way I decide, the other party will apply to the Court. You will have the benefit of the opinions of all the four judges, whichever way I decide. We may read the charter from the act of Parliament.

Sir James Scarlett read the passage in the charter upon which the proceedings were founded.

*Mr. Campbell* replied—I will point out what seems to be an objection to the declaration. The declaration alleges that King Henry VIII., by his charter, "did, amongst other things, grant to certain persons therein named and expressed, that they should be, in deed and in name, a body and perpetual commonalty, or a perpetual college." He granted to the persons therein named and expressed, that they (that is, the persons therein named and expressed) should be so. Now, I will point out to your lordship what seems to me to be a fatal variance, because there is "memoratis doctoribus Joan

Chambre, Thomas Linacre, Ferdinando de Victoria, medicis nostris, Nicholae Halsewel, Joanni Francisco, et Rob Yaxley, medicis concessimus, quod ipse ~~omnesque~~ homines ejusdem facultatis de et in civitate prædicta, sint in re et nomine unum corpus et communitas perpetua sive collegium perpetuum." Now the grant is, not the six persons named Chambre, Linacre, Ferdinando de Victoria, Halsewell, Francis, and Yaxley, were to become a perpetual commonalty and college, but that they "et omnesque homines ejusdem facultatis,"—that they, and all the men of the same faculty, were to become so. Now, my lord, I believe the College have got a wrong copy of their own charter, and that they have acted upon it as if the charter were a grant to these six individuals, and such persons as they might choose to be their successors, and not to the "omnesque homines ejusdem facultatis;" because I believe what they have done is to refuse to admit "omnesque homines ejusdem facultatis," although a person may be as learned as Sir Henry Hallford himself, and may have taken his degree at Padua or Edinburgh, or the most learned school in medicine. They will not admit him; and they proceed upon the supposition that there are no such words in the charter. Now I submit to your lordship, these are words in the charter, and most material words, and this grant is not by Henry VIII. to particular individuals named only, but to all men of the faculty of medicine: that is, to all who have regularly graduated at any acknowledged university. That being so, my lord, I submit to your lordship, that this allegation in the declaration that there is that grant to the persons named, and to them only, is not substantiated; and upon that ground the plaintiffs should be nonsuited.

*Sir J. Scarlett.*—My lord, my friend's objection divides itself into two parts: one is a mere formal objection to the declaration, on the ground of variance between that and the charter produced; and the other is a discussion merely of the merits, whether or not the charter can receive the construction which is put upon it by the College of Physicians; which last question I beg to postpone.

*Lord Tenterden.*—That question has nothing to do with it.

*Sir J. Scarlett.*—Then, my lord, the question is, the charter constitutes individuals who are named, and the then medical practitioners and graduates of the universities of England, a corporation. My friend says that the declaration does not, in the description of the charter, give it to all the body, but confines it to the individuals named. It will be for your lordship to say whether the words of the declaration will bear that interpretation. Now the words are, that King Henry VIII. granted to certain persons, therein named and expressed; and the question will be, whether the word expressed will not sufficiently embrace all the other persons who were not named specifically, that are expressed and declared to be the then persons practising medicine? I apprehend, my lord, that is sufficient, that it is not such a variance as is suggested. If this declaration had stated a grant to a larger body than the charter implies, that would have been a variance. There is no doubt that the grant was to the individuals named; but, if it be necessary also to say, besides the individuals named, there was a class of persons not named who were made members of the corporation, I submit that the word expressed is sufficient to shew that the charge of variance is not justly ascribed to this declaration. I should state to your lordship, this follows a precise precedent of a similar proceeding which has taken place before; and therefore, though I am not answerable for the declaration, my friend, who drew it, made it like a precedent which took place before.

*Mr. Brougham.*—Your lordship sees the persons therein named are those very persons, and the persons expressed are those who practised medicine.

*Lord Tenterden.*—Now, Mr. Campbell:

*Mr. Campbell.*—The question is, whether expressed means implied? Now I always thought expressed had been opposed to implied. My friend says, by expressed must be meant those that are not named. Now I say, expressed goes on to express more specifically what it is to those who are named and expressed; and you can never, under the word expressed, say it is granted to any persons by implication. Now, my friend Sir James Scarlett says, discuss-

ing that objection, if there were others to whom it was granted; it would be no fatal variance. My lord, I apprehend that is clearly untenable; for suppose it had been to those persons and others not named, there was a body totally distinct; and, if it had been excluded by the manner in which the grant is stated in the declaration, I apprehend that would be a fatal variance; and the question is whether, by the word expressed, you can include those who are not expressed.

*Lord Tenterden.*—I am very clearly of opinion that the word expressed in this declaration means, *omnesque homines ejusdem facultatis*; and therefore there is no variance.

*Mr. Campbell.*—Very well, my lord.

*Lord Tenterden.*—Then now, I suppose, you will direct my attention to the statute contained in your declaration.

*Sir J. Scarlett.*—Yes, my lord. It is the 14th and 15th of Henry VIII. c. 5. It was recognised by several subsequent statutes.

*Lord Tenterden.*—Now arises Mr. Campbell's objection.

*Mr. Campbell.*—If my learned friends say, by putting that printed book in your lordship's hands, that would have satisfied the allegation in the declaration that this charter was confirmed by act of Parliament, then I say it is no evidence, and the plaintiffs must be nonsuited. It is quite clear there must be a confirmation by act of Parliament; for the king, by his royal prerogative, could not have any power to create a body, and give a right to levy a penalty upon the subject. It may be done by act of Parliament. Now, there is an allegation that the said letters patent—

*Lord Tenterden.*—Were confirmed by act of Parliament.

*Mr. Campbell.*—Were confirmed by the statute in that case made and provided. The evidence of that is, to hand up to your lordship a printed book professing to contain the statutes of the realm. Now my first objection is, that even if that were upon the face of it an act of Parliament confirming that charter, that it would not be admissible evidence for the purpose. This is a private act of Parliament: it relates to a particular class of his Majesty's subjects, and to a particular place,—to physicians within seven miles of London; it is therefore a private act of Parliament, and a private act of Parliament is not to be proved by a printed collection of the statutes. It must be proved by an examined copy from the Parliament rolls. Now, secondly, suppose that an examined copy from the Parliament rolls of that which lies before your lordship were produced, then I say that would not prove that any such statute ever passed; for it is only a document merely in the form of a petition from those persons named in the charter, that it may please the king that such and such a statute may pass. Now, there is nothing there of "*le roi le veut*," or any thing to intimate that the royal assent was given to the petition. If a witness were called from the Tower of London, who said this petition was found in the rolls, and that there were the words upon the roll "*le roi le veut*," that might be evidence to be received that an act of Parliament did pass both houses of legislature, and did receive the royal assent; but there is no evidence to shew it ever passed the commons' house, it ever passed the lords' house, or received the royal assent; and, therefore, if it were produced from the Tower of London separately, they would prove nothing: and on both these grounds I submit the plaintiffs must be nonsuited.

*Sir J. Scarlett.*—My lord, my friend is too severe with me.

*Lord Tenterden.*—Does Mr. Armstrong wish to add any thing?

*Mr. Armstrong.*—I would merely add, that it is usual, even in public acts of Parliament, to have a clause to make them evidence; without which they are not evidence.

*Lord Tenterden.*—There is no doubt as to the principle: the only question is as to the application. As at present advised, I think this is a public act, which applies to all London, and the last section, which applies to the whole kingdom; but I will save that point, Mr. Campbell. I cannot do better for you than that.

*Sir J. Scarlett.*—It is for the health of all his Majesty's subjects.

*Lord Tenterden.*—You will move for a nonsuit, Mr. Campbell.

EMMA EDWARDS, sworn.—Her evidence proved that Dr. Harrison had attended her mistress, Miss Orton, for a considerable period, and that he received fees in the usual way. She had frequently seen Dr. Harrison write prescriptions. She identified those which were handed to her by counsel as having been written for her mistress by Dr. Harrison. They were made up at Mr. Yarde's, the chemist. Dr. Harrison had also attended witness herself. Miss Orton was not able to attend the trial.

*Cross-examined by Mr. Campbell.*—Q. You were the servant of Miss Orton?—A. Yes.

Q. I believe this young lady unfortunately had an affection in the spine?—A. Yes.

Q. A curvature in the spine?—A. Yes.

Q. Was it not for that that Dr. Harrison attended her?—A. Yes; and for the health as well.

A. Her health was affected from this affection of the spine, was it not?—A. That I do not know.

Q. She had this affection of the spine during all the time Dr. Harrison attended her, had not she?—A. Yes.

Q. Were you ever in the room when means were taken to cure this curvature?—A. Yes.

Q. Was not that done by the hand?—A. Yes.

Q. By friction, by rubbing, and by trying to lengthen the spine?—A. Yes.

Q. Was he not generally half an hour employed in these operations?—A. Yes.

Q. Trying by the hand to strengthen the spine?—A. It was done by extension.

Q. Mechanical means were employed?—A. Yes.

Q. (*by Lord Tenterden.*) By the hand, or was an instrument employed?—

A. An instrument was employed, I believe.

Q. (*by Mr. Campbell.*) By the hand and by an instrument?—A. Yes.

Q. Was not that done almost every time that Dr. Harrison came?—A. Yes.

Q. You say that Dr. Harrison gave you some advice?—A. Yes.

Q. He did not take any thing from you, I suppose?—A. No.

Dr. Harrison's letter, No. 8,\* was again put in, and read.

MR. MURRELL PICKTHORN, sworn, (*examined by Mr. Parke.*)—Deponent was a surgeon and apothecary. He now attended Miss Orton. Had made up the prescriptions of Dr. Harrison. They were for internal remedies. Had also made up prescriptions of Dr. H.'s for Emma Edwards. They were also internal remedies.

MR. J. ROBERTS, recalled.—Had applied to the attorneys of the defendant for admission that he had practised as a physician. They consequently applied to the defendant, who declined making any admissions.

*Sir J. Scarlett.*—I am going to put in another letter, which I did not mean to have read, but in order to allay any question as to his practising as a physician.

Dr. Harrison's letter to Dr. Chambers† was then read.

MR. CAMPBELL.—May it please your Lordship; Gentlemen of the Jury: I do confess I am a little surprised that this learned body should come into his Majesty's Court of King's Bench with such a case as my learned friend, Sir James Scarlett, has presented before you. I might call upon my Lord Tenterden, I apprehend, to say there is no case for your consideration at all.

\* London Med. and Phys. Journal, October 1827, p. 377.

† Ibid. July 1827, p. 85.

But, however, gentlemen, I will confess that there is some evidence, however slender, for your consideration; but you, having considered that, I feel the utmost degree of confidence, will find a verdict for my friend.

Gentlemen, I begin by disclaiming, on the part of my client, any irritation, any ill will, any ill opinions of the individuals of whom the Royal College of Physicians is composed; and, above all, to remove any imputation from the character of the learned president, Sir Henry Hallford, for whom my client, Dr. Harrison, who sits before me, along with the community at large, entertains the utmost possible respect and regard. He is a most learned physician,—he is a most honourable man,—and I rather suspect that, if he were in court, he would be very much ashamed of this proceeding, which has taken place in the name of the body over which he presides. But while I mention with regard and honour the individuals of whom the College of Physicians is composed, I must speak of them as a body, upon this occasion, with indignation and reprobation. I think their conduct is illegal. I think that it is disgraceful. They are attempting to deprive his Majesty's subjects of that skill and that attention which may be devoted to their relief and the improvement of their health.

Gentlemen, I should have thought that these were not exactly the times to bring forward an obsolete act of Parliament, passed in arbitrary times. This charter by itself is contrary to law. I respect the prerogative as much as any man, but I must point out the limits of that prerogative. The king has no right to create a body with a right to levy a penalty upon any of his subjects. Such was the charter made under the mild government of Cardinal Wolsey; and, for five years after that charter was granted, it remained without any act of Parliament, and it was not until the fifteenth year of the reign of Henry VIII. that, under the same auspices, a pretended act of Parliament is supposed to have passed, about which we may hear, if necessary, another day,—but a question which I think probably never will arise,—whether it was sanctioned by the legislature or not. But be it sanctioned, or be it not sanctioned, by the legislature, gentlemen, I think the College of Physicians would have acted more prudently, more discreetly, if they had kept it quietly in their recesses, instead of blazing it in open day, and exposing it to the public gaze.

Now, gentlemen, what is their charter, and what is this act of Parliament? I say, gentlemen, I will not, as my friend Sir James Scarlett says, enter into the policy of it. I will suppose it was most legal, most politic, most wise. The question you have to determine, I allow, is, has this charter, and has this act of Parliament, been violated? Has there been evidence laid before you to shew that my client Dr. Harrison has incurred these penalties?

Now, gentlemen, you will observe that the penalty is this, for having practised as a physician,—for having practised the faculty of physic for a month continuously; and unless Dr. Harrison is proved, in medical cases not surgical,—not where he is using his hand,—not where he is using mechanical means, and where an instrument is employed to elongate any part,—but if he shall be proved for a month continuously to have exercised the art of a physician, and that made out upon indisputable evidence, however you may conceive the College may have violated their statutes, what improprieties they may have been guilty of, and however ill they may have behaved to licentiates, and whatever disputes there may have been in that learned body, I admit that there must be a verdict against my client. But this, gentlemen, is a penal action; this is what is called a *qui tam* action. These learned physicians bring an action as well for their lord the king as for themselves, and they seek to divide the penalties with the king which they recover from Dr. Harrison; but in order to enable them to maintain the *qui tam* action, they must make out to your satisfaction that Dr. Harrison has practised for a month as a physician.

Now, gentlemen, I will tell you at once what is the dispute between Dr. Harrison and the College of Physicians: it is not whether he may not practise as a physician, but whether he may not exercise his skill in the treatment

of spinal complaints. Dr. Harrison, my friend—Sir James Scarlett acknowledges,—and Sir Henry Hallford would have been very much ashamed if any contrary conduct had been pursued;—Dr. Harrison is a man of liberal education, of profound learning, and great practice in the particular department to which I refer. Would he be afraid to meet Sir Henry Hallford? Sir Henry Hallford is a most learned physician; but would Dr. Harrison be afraid to undergo an examination before Sir Henry Hallford? Sir Henry Hallford is not a greater man than Dr. Munro, the professor of anatomy in Edinburgh,—than Dr. Cullen, than Dr. Black, than Dr. Gregory,—than the illustrious medical men who distinguished the University of Edinburgh when Dr. Harrison studied there; and, if he has submitted to an examination under such men, he would not shrink from the examination even of Sir Henry Hallford, and all the learning that may now adorn the College of Physicians in London. But, gentlemen, he says they have no right to interfere with his practice, because he has not practised as a physician; he is devoted to one particular disease that afflicts a particular part of the human body, and that there is nothing in the act of Parliament, there is nothing in the charter, which requires that for that purpose he should become a licentiate of the College of Physicians.

Gentlemen, Dr. Harrison practised many years in the county of Lincoln; he then came to London; he has devoted himself to the treatment of that particular complaint. He is, and probably many of you, gentlemen, men of general education and of general reading, may be aware that he is the author of a book entitled “Pathological and Surgical Observations upon Spinal Diseases, illustrated with cases and engravings;” that that is a book of very considerable celebrity, and of very great merit; and that he has devoted his life to the investigation of the evils that arise from a distorted spine. Gentlemen, I say he came to London on purpose that he might devote himself to that particular department of the surgical profession. Does not this entirely correspond with the evidence? I will examine the evidence by and by; but first let me remind you of the well-known distinction in the art which has long subsisted, which was known at the time of Henry VIII., between medicine and surgery. Medicine, gentlemen, is one department; surgery is another. Now, that which is a surgical case is not a physical or a medical case; and what are surgical cases? Why, gentlemen, *ex vi termini*, they are cases in which the hand is employed, in which something is to be done to a particular part of the human frame by means of the hand, or by means of mechanical expedients; and therefore, whenever you see that the case is a surgical case, then that is demonstration that that is not a case which is within the province of a physician.

Now let us see what evidence has been given before you today to show that Dr. Harrison has practised as a physician. He is proved to have been for years practising; this learned body have set all their informers to work; they have industriously employed themselves to find out he has been practising as a physician. They say they have got evidence. Sir James Scarlett referred himself to some other cases, which they have not proved; and the single case which they have brought forward is the case of an unfortunate young lady, of the name of Orton. Now, I ask you,—and I ask you boldly and confidently,—is Dr. Harrison proved to have attended Miss Orton as a physician? I say, boldly and confidently, he did not attend her as a physician. What was her complaint? Her complaint was a disordered spine. Who would you call in for that? Would you call in Sir Henry Hallford? No, you would call in Sir Astley Cooper, who is acquainted with anatomy; and if you can find any person who is perfectly conversant with that disorder, you would call in that person: and this young lady had heard of this gentleman, and she calls him in, and he devotes himself to her case, and he employs about half an hour in each day in rubbing her with his hand upon a board, to elongate the spine, and employs an instrument. Did you ever hear of a physician employing a surgical instrument? Who employs surgical instruments? Why, a surgeon. Would Sir Henry Hallford, if he were called in,—would he, with his own hand, have operated upon the spine of this unfortunate young woman? would

he have employed an instrument for that purpose? Certainly not: he would have said, send for Dr. Harrison,—send for Sir Astley Cooper,—send for a person whose hand is accustomed to this particular employment, and who is in the habit of using the mechanical means which are used for the purpose of curing distortion! Then did Dr. Harrison attend her as a physician or a surgeon? I say he attended her as a surgeon: he performed the functions of a surgeon, and that shews in what capacity he attended. Then there is no other instance given, but this Miss Orton and poor Emma Edwards, the maid-servant. Now, poor Emma Edwards, the maid. What was the matter with her, I did not ask. It might have been a distortion of the spine likewise; although she appears a very good-looking young woman, and I believe it was nothing of that sort; and if it was, she has been cured. My friend said it was something to be taken internally. Now, gentlemen, unless I am very much mistaken, frequently in cases which are purely surgical they prescribe medicine. What case is there in which medicine is not prescribed? I have read surgical books myself, as you have. I have read of the treatment of various disorders; I have read of the treatment of the disease of lues venerea, —there is no impropriety in referring to what I have read upon the subject, —that for a surgeon or a physician the treatment of that disease. I have always understood that was a surgical case, and that the person employed a surgeon who had the misfortune to labour under such a malady. But are there no medicines taken for that? I think you have *hydrargyri quantum sufficit* in the books I have read, and that is signed with the initials of the surgeon; and, gentlemen, the person who receives that prescription from Mr. Cline or Sir Astley Cooper, or any of those who have their levee in the morning, takes it to a neighbouring druggist, and it is made up, and the medicine is taken, and the cure is effected; but, according to this, Mr. Cline might have been summoned before these physicians, and they might have said, “You, Mr. Cline, have practised as a physician, for you not only gave external applications for the disease about which you were consulted, but you prescribed remedies; you said there were some pills to be taken, and therefore that is an internal medicine; and, being an internal medicine, you have prescribed as a physician, and we will levy five pounds a month for every month you have been practising as a physician. Gentlemen, the argument would be just as strong if the case were Mr. Cline’s or Sir Astley Cooper’s, as if the case were Dr. Harrison’s.

Now, in addition to the evidence of Emma Edwards, they have only put in the prescriptions. Why, some internal medicines must have been taken. During the time that the external applications were going on, it was necessary that some internal medicines should be taken. Whatever the object may be, there are medicines that are given internally. One of the most celebrated surgeons of the present day, Mr. Abernethy, says he gives nothing but medicines to be taken internally; and I rather believe, if you went to him for a broken leg, he would say it proceeded from the stomach, and he would write a prescription to be taken; because that which was done formerly, by many medical men, by external applications, is now done by medicines taken into the stomach; and you will say, because a man goes with a broken leg, if he should have some internal remedies given to him, that it is not a surgical case, it is a medical case, because there is physic to be taken: he is practising physic, because there is physic taken; there is physic prescribed, and therefore that is a case of practising physic. Gentlemen, that is the way they reason; but I trust that is not the way you will reason. They can make nothing of Miss Orton; and therefore this College of Physicians, this grave and learned assembly, are to rest their case upon a dose of salts prescribed to Emma Edwards by Dr. Harrison. Gentlemen, really entertaining a respect for the individuals who compose this learned body, I feel compassion for them in their present melancholy situation.

Now, my learned friend Sir James Scarlett, finding he could make nothing at all of his parole evidence, tried to bolster up his case with certain letters that were written by Dr. Harrison. Now, gentlemen, I defy my



learned friend to point out one single line in those letters to make out his case; for Dr. Harrison does not at all, in those letters, do more than vindicate what he was doing. He says, "I have a right to do what I am doing, and I will try that question whenever you please. I will admit that practice." But what was he doing? He was attending to spinal complaints; he was devoting himself to that department of the healing art; and when he says he will try it, he is now trying it, and you will observe that the question is, whether attending a spinal case, and labouring with the hand, and employing mechanical means to elongate the spine, is practising as a physician? He was always anxious to try that. If Mr. Roberts had gone to Dr. Harrison, and said that was the admission they wanted, that admission would have been given; but they required an admission contrary to the fact, and therefore that admission was denied: and you will observe what Dr. Harrison says. He says, "I have only to add, in concluding my correspondence, that Messrs. Tennant, Harrison, and Tennant, of Gray's Inn, are my solicitors. To them I refer you in case of your choosing to institute proceedings against me. They are furnished with instructions to give every facility to a legal investigation of your assumed privileges; but they are directed"—(now mind what he says upon this very letter,)—"neither to compromise my rights, nor those of my professional brethren." They would have greatly compromised the rights of Dr. Harrison, and his professional brethren, if they had made the admission that was required. They were ready to make the admission which I now make, and which Dr. Harrison, and those by whom he was advised, were very ready to make, that he has devoted himself to the practice of spinal complaints, and no other.

Now, let us look at the other letter, which I observed Sir James Scarlett was ashamed of, and brought forward with great reluctance. He said he did not intend to read it, and I know he did not, because, from the good feeling which actuates his bosom, he must be sorry that any such correspondence should have passed, or that any such bye-law should have been made by this learned body. Now, what is that bye-law? Gentlemen, it is that, in any case, however urgent and pressing,—in a case of life and death,—no Fellow or Licentiate of the College of Physicians shall have any intercourse with any one who is not a member of the College of Physicians.

*Lord Tenterden.*—There is no such bye-law in evidence.

*Mr. Campbell.*—If my friend will read a letter, he must read the whole of it.

*Lord Tenterden.*—He must read all that it contains.

*Mr. Campbell.*—Then, my lord, it shows there is such a bye-law.

*Lord Tenterden.*—Then you must prove the bye-law.

*Mr. Campbell.*—My lord, I will read the letter.

*Lord Tenterden.*—You must prove the bye-law, or only use it as a matter of argument.

*Mr. Campbell.*—My lord, what Dr. Harrison states in his favor must be taken as well as what he states against himself. "I was not a little surprised, on my return to Quebeck-street last Sunday evening, to learn that you had formally refused to meet me in consultation, because I had not received a licence to practise medicine from the London College of Physicians. As the delicate sufferer was at the time in the greatest possible danger, I leave you to form your own conclusions upon the humanity and propriety of declining to give assistance to an afflicted fellow-creature, in compliance with a capricious and untenable bye-law." What does that refer to? Why it refers to the case of an afflicted fellow-creature, who was in the greatest possible danger, and Dr. Chambers being called upon to consider the case of that fellow-creature;—what the nature of the malady was is not disclosed,—but Dr. Chambers being called upon to meet Dr. Harrison in that case, when a fellow-creature was in the greatest possible danger, refused it, and urged a bye-law of the College of Physicians, that no Fellow or Licentiate could meet, in any case, however pressing, a person who was not either a Fellow or Licentiate. Gentlemen, that accounts for the reluctance of my friend Sir

James Scarlett to bring forward that letter, which I think reflects no credit upon the College of Physicians, and which shews the foundation for the observation which Lord Mansfield made, fifty years ago, upon their bye-laws—that they required a serious revision. Then what does that letter prove? Does it prove any thing? That letter proves nothing except that odious and detestable bye-law of the College of Physicians. It proves nothing for the case of my learned friend Sir James Scarlett; it does not prove that the case there referred to is a case different from those upon which Dr. Harrison had always employed himself; nor does it prove that he had, in a solitary instance, in a case of urgent necessity, when the life of a fellow-creature was at stake,—that he had, even when he was willing to give all the relief he could for the sake of the sufferer, and the family of the sufferer, practised as a physician, or continued to practise as a physician for a month continuously,—that is, the whole time. Therefore, gentlemen, that letter does not assist the case of my friend; it does not prove the allegation which my friend is bound to establish; and therefore that letter, as I shall contend, as well as the parole evidence which has been given, concur in this proposition, that the College of Physicians have wholly failed in making out what they have endeavoured to prove.

Gentlemen, that being the case, I think you cannot hesitate a moment about the verdict which it will be your duty to pronounce. You will go upon the evidence, I allow, without considering the policy or impolicy of the law; but at the same time, as men, you will feel some satisfaction in finding that the College of Physicians are wholly unable to substantiate their odious pretensions, and will dismiss them from this Court with a useful lesson.

Lord TENTERDEN.—Gentlemen of the Jury; The single question for your consideration is this fact alone: Has it been made out that Dr. Harrison did exercise the faculty of physic during the period mentioned in the declaration? With the expediency of the charter we have nothing to do. We must abide by the law as it exists. The bye-law is of such a nature as to require confirmation by an act of Parliament, which it is alleged to have received. It was properly objected by the counsel, that that which was given to me as an act of Parliament, is in fact not one. This point I have reserved for the decision of the whole Court.” His lordship then minutely recapitulated the evidence, the substance of which we have given, and afterwards proceeded to comment upon the defence. “It had been said on behalf of the defendant, that the proofs only went to his practising as a surgeon, and that he had a right to do so without incurring the penalty of the bye-law. This was true. But if a man exercises both physic and surgery, then he is within the bye-law. It was very extraordinary that the defendant should contend that he had not practised as a physician at all; that he had merely practised as a surgeon. He had been challenged upon the subject, and was called upon to take up his licence, or to discontinue his practice. What did he say? Not that he did not practise as a physician; but he repeatedly asserted that he had a right to do so, and that the bye-laws could not be maintained. That was the substance of his letters. Dr. Chambers had refused to meet Dr. Harrison, but no physician ever refused to give his advice in company with a surgeon. Every expression in the letter from Dr. Harrison to Dr. Chambers asserted the right the defendant had to practise as a physician, without the licence of the College. Taking his letters in connexion with the parole evidence, which went to prove, not that the defendant attended the patient for a complaint which was considered as surgical, but that he also wrote prescriptions, which had been produced, and which were signed by him as a physician would sign them, it was for the jury to say whether they were satisfied he had practised as a physician. If they were of that opinion, their verdict would be for the plaintiffs. But if they were of opinion that he had not acted as a physician, but as a surgeon only, that was not against the law, and their decision would be in favor of the defendant.”

The jury, after being absent nearly an hour, found a verdict for the defendant.

The power of the College of Physicians has been several times disputed, by different persons; but we believe that the principal doubts as to the validity of the charter, which were urged by Mr. Campbell, have never before been started. We are aware that the plea founded on the supposition that the act of Parliament never received the royal confirmation, was overruled by Chief Justice Pemberton. (2 *Show.* 166. See also *College of Physicians v. Huybert*, Goodall's Collect. 267.\*) But, if the legality of the charter were indisputable, Lord Tenterden would surely have at once determined the question: he would not have thought it necessary to take the opinion of the judges. Neither would Sir James Scarlett have omitted so ready an answer to Mr. Campbell, as that the objections he took had been already set aside, if they ever had been. The case of *Bonham*, referred to by Sir James Scarlett, and that of *Dr. Stanger*,† which we have frequently heard adduced as evidence of the power of the College, are not so decidedly to the purpose as they are reported to be. In these cases, the doubts raised by Mr. Campbell were not urged; the legality of the charter was not, we believe, scrutinised. It did not occur to the counsel to dispute it. But it does not follow that, because the charter has been recognised, *sub silentio*, in previous cases, that it is a good and perfect charter. The repeated recognition of an imperfect act cannot make it perfect. In our opinion, therefore, the power of the College of Physicians still remains a moot point.

The motives which influence the decision of a jury, can be known only to themselves; but when we reflect upon the pointed termination of Lord Tenterden's summing-up, we cannot doubt that the verdict went for the defendant because the jury believed he had been proved to act as a surgeon, and not as a physician. We, therefore, differ altogether from the opinion expressed upon this subject by one of our contemporaries.

With respect to the conduct of Dr. Harrison, there is but one opinion. He has gained a verdict, but not upon his original cause. He asserted that he had a right to practise as a physician, and he terminates by showing that he is a SURGEON! Can he reflect upon his very equivocal success with any gratification? or has he a right to complain if we accuse him of the most direct tergiversation? To our feelings, defeat would have been much more palatable than such a triumph, sweetened even as it was by the puffs so adroitly introduced by the well-instructed counsel. In a word, Dr. Harrison entered the cause as a volunteer: he abandoned it as a deserter. Well may we ask—

Quid dignum tanto feret, hic promissor hiatu?

\* *Medical Jurisprudence*, by Paris and Fonblanque, vol. i. note p. 17.  
† 7 *Term Rep.* 282.

## MONTHLY LIST OF MEDICAL BOOKS.

[Medical Works cannot be entered on this List except a copy be sent for the purpose; the titles of Books having frequently been transmitted to us, as published, which have not appeared for weeks, or even months, after.]

Commentaries on the Causes, Forms, Symptoms, and Treatment, Moral and Medical, of Insanity. By GEORGE MAN BURROWS, M.D. Member of the Royal College of Physicians of London, &c. &c.—8vo. pp. 716. T. and G. Underwood, London, 1828.

A Series of Observations on Strictures of the Urethra, with an Account of a new Method of Treatment. By RICHARD ANTHONY STAFFORD.—8vo. pp. 158. Longman and Co. London, 1828.

A Rational Exposition of the Physical Signs of the Diseases of the Lungs and Pleura. By C. J. B. WILLIAMS, M.D.—8vo. pp. 191. Underwoods.

The Morbid Anatomy of the Bowels, Liver, and Stomach, illustrated by a Series of Plates; with explanatory Letterpress. By JOHN ARMSTRONG, M.D. &c. &c. Fasciculi 1 and 2.—4to. Baldwin and Cradock.

Remarks on the Supply of Water to the Metropolis; with an Account of the Natural History of Water, and of the Chemical Composition and Medical Uses of all the known Mineral Waters. By MICHAEL RYAN, M.D. &c. &c.—Longman and Co. 1828.

## METEOROLOGICAL JOURNAL,

From May 20th, to June 20th, 1828.

By Messrs. HARRIS and Co. Mathematical Instrument Makers, 50, High Holborn.

June	Rain gauge.	Moon.	Thermom.			Barometer.		De Luc's Hygrom.		Winds.		Atmospheric Variations.		
			9 A.M.	M.A.T.	M.I.N.	6 A.M.	10 P.M.	9 A.M.	10 P.M.	9 A.M.	10 P.M.	9 a.m.	2 p.m.	10 p.m.
20			62	73	57	29.85	29.84	80	88	SW	W	Cloudy	Cloudy	Cloudy
21	.33	☾	60	68	56	.78	.76	96	82	WNW	W	Rain	Fine	Fine
22			57	75	55	.70	.65	87	82	SW	WSW	—	Rain	—
23	.47		57	75	55	.90	80.18	80	82	NW	NNW	Fine	Fine	—
24			67	72	58	30.13	.13	83	76	N	N	—	—	—
25			71	75	61	.15	.18	81	77	WNW	NW	—	—	—
26			72	74	64	.18	.14	79	74	N	SW	—	—	—
27			74	80	60	.10	.18	87	78	SW	SE	—	—	—
28			74	79	60	29.94	29.90	90	75	E	E	Cloudy	—	—
29		☉	72	77	61	.83	.81	100	76	ESE	SE	—	—	—
30			70	76	65	.85	.81	79	78	ESE	SW	Fine	—	—
July 1			72	75	56	.80	.77	83	80	W	WSW	—	—	—
2			71	76	74	.75	.78	96	47	W	W	Cloudy	—	Cloudy
3			76	79	72	.76	.77	51	45	W	W	—	—	Fine
4	.18	☾	75	76	66	.70	.75	74	43	SSW	W	—	Rain	Cloudy
5			72	74	77	.72	.71	46	45	W	W	Fine	Fine	Fine
6			70	70	60	.78	.72	43	46	W	NW	Cloudy	Cloudy	Fine
7			73	76	61	.74	.70	55	45	W	SE	—	Fine	—
8			76	78	62	.60	.78	66	48	ESE	SE	—	Show'ry	Show'ry
9	.47		77	68	63	.41	.44	65	65	NW	N	Rain	Fine	Fine
10	.70		72	70	61	.50	.50	58	50	N	W	—	Cloudy	Cloudy
11			68	73	68	.83	.72	60	55	WNW	SE	—	Rain	Rain
12	.72	●	73	65	55	.44	.40	66	51	NW	NW	—	Rain	Fine
13			61	64	55	.23	.40	50	49	WNW	NW	—	Cloudy	Fine
14	.20		64	67	56	.42	.40	49	47	W	WNW	Fine	Rain	Rain
15			61	66	55	.35	.45	47	48	W	W	Cloudy	Cloudy	Fine
16			64	72	59	.61	.64	48	49	NNW	W	Cloudy	Cloudy	—
17	.42		73	72	63	.58	.60	49	50	WSW	W	Rain	—	—
18			69	73	61	.50	.42	50	50	SW	WSW	Cloudy	—	—
19			68	70	58	.50	.47	50	50	WNW	W	—	—	Fair

The quantity of Rain fallen in the month of June, was 3 inches and 49.100ths.

ERRATA.—The line at the top of p. 11 should have been placed at the bottom of p. 12.—P. 50, l. 29, for views read veins.

# THE LONDON Medical and Physical Journal.

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NO. 355, VOL. LX.]      SEPTEMBER, 1828.      [NO. 27, *New Series*.

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For many fortunate discoveries in medicine, and for the detection of numerous errors, the world is indebted to the rapid circulation of Monthly Journals; and there never existed any work, to which the Faculty, in Europe and America, were under deeper obligations, than to the *Medical and Physical Journal of London*, now forming a long, but an invaluable, series.—RUSH.

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## ORIGINAL PAPERS,

AND

CASES OBTAINED FROM PUBLIC INSTITUTIONS AND OTHER  
AUTHENTIC SOURCES.

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### INFLAMMATIONS OF THE EYE.

*On certain Methods of treating Acute and Chronic Inflammations of the Eye, lately adopted at the ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.* By G. J. GUTHRIE, F.R.S. Professor of Anatomy and Surgery to the Royal College of Surgeons; Surgeon to the Westminster Hospital, and to the Royal Westminster Ophthalmic Hospital, &c. &c. &c.

*To the Editors of the London Medical and Physical Journal.*

GENTLEMEN,—In transmitting to you the accompanying cases, illustrative of certain methods of treating chronic inflammation of the eye, I do not intend to notice at present the various trials which have been made during the last eighteen months, in order to arrive at the mode of proceeding now adopted. It will be sufficient to say, that in no instance has any evil resulted from the remedies employed; whilst in most cases they have been eminently serviceable. The principle on which they have been used has been that of exciting an action greater, and of a different nature, to that already existing in the part, and therefore they must have been powerful in their effects. I have found them most manageable in the shape of ointments, and I give the preference to the two following—

1. R. Argenti Nitratis, gr. ij. ad gr. x.; Liq. Plumbi Subacet. gtt. xv.; Ung. Cetacei ʒj.

2. R. Hydr. Oxymur. gr. iij. ad iv.; Liq. Plumbi Subacet. gtt. xv.; Ung. Cetacei ʒj.

The Argentum Nitratum, and Oxymuriate of Mercury, must be reduced first to an impalpable powder, then mixed with the ointment on a slab, and the Liquor Plumbi added. It may be done in a glass mortar. A double decomposition takes place in either ointment, which naturally diminishes the strength of each; but this change takes place slowly, particularly in the oxymuriate ointment, so that weeks elapse before they become inert. A very sensible difference is felt by the patient between an ointment only two days made, and another of two or three weeks' standing, and the stimulating qualities may be calculated according to the state of the eye, as well as the strength of the composition. The argentum nitratum ointment is grey when first made, but soon changes its colour to a brownish black. If the argentum nitratum be mixed with the ung. cetacei (as I once used it,) without the liquor plumbi, it dissolves more rapidly; when used, the powdered nitrate falls into the fold of the conjunctiva, or rests on the lid, and is apt to cause a slough, which is prevented by adding the lead.

The manner of using either ointment is by introducing between the lids a portion, larger or smaller as the case may seem to require it, from the size of a large pin's head to that of a garden pea. The eyelids being closed, are to be rubbed gently with the finger, so as to diffuse the dissolving ointment over the whole surface of the conjunctiva: a part of it usually, however, works out by the motion of the lids, and should be wiped off (if the nitrate of silver,) to prevent its staining the skin. Both ointments cause pain: in some persons it is considerable, in others less so, lasting from half an hour to an hour and a half; and, when the ointment is newly made, sometimes for four hours, and even until the next day. On the subsidence of the pain caused by the ointment, that which previously existed is found to be relieved, if not entirely removed; and, on the subsequent day, the patient usually acknowledges the benefit he has received with regard to all the symptoms. When the application has been severe, and the patient very irritable, a state resembling white chemosis occasionally takes place, and appears formidable to a person unacquainted with the effect of the remedy: it soon, however, subsides. The eye should be fomented with warm anodyne fomentations.

I rarely repeat the application until the third day; but the feelings of the patient are the best guide, the return of some of the old sensations indicating the necessity for its use, which should be, if possible, anticipated. In some cases of acute inflammation, two or three applications will arrest the

progress of a serious disease, and effect a cure. In chronic cases, the ointment must be continued for a considerable time, and occasionally alternated with other remedies. Where they create a state of regularly increased irritation, as they sometimes will do, cupping, purgatives, &c. are of service; when the remedies may again be resorted to.\*

In the various trials I have made with these applications, and others of a similar nature, I have generally used purgatives, sometimes mildly, sometimes severely; and very often serious complaints have been treated successfully without any internal medicine. In some cases they disagree altogether, but then it is when they have been called upon to do that which ought not to have been expected from them. I do not consider them as specifics for all diseases, but as remedies capable of doing an infinity of good under proper management.

I have made these few observations in order to draw attention to them, and to the principle on which they are used. Any explanation which may be desired, or which curiosity may incite, will be given any Tuesday or Thursday morning, at half-past twelve o'clock, at the Ophthalmic Hospital, the doors of which have always been open to every practitioner.

I am, gentlemen, your obedient servant,

G. J. GUTHRIE.

P.S.—In the following cases I have suppressed the names of the different gentlemen whose care the patients had been under. It must, however, be understood they were all acquainted with, and professing a knowledge of, this branch of surgery. To those unacquainted with it, it may appear strange that persons who have been shewn to be curable should remain so many years under the best care, both in and out of hospital, with so little amendment. Nothing is, however, more common; and that persons labouring under diseases of this nature should require from twelve to twenty months in hospital before an approach to a cure is accomplished, the minutes of the Ophthalmic Committee of the House of Commons will abundantly testify. This fact will be a sufficient apology for the different trials which have been made, and for those which may yet be made, in order to discover better and speedier modes of cure.

\* It is curious to see the feelings manifested by different persons. Some, indeed nearly all subjected to the use of these ointments at the Ophthalmic Hospital, asking to have them applied; others fearing the pain, but satisfied of the benefit received, and choosing their own days, and which eye, when both are affected.

CASE I.—Maria Courage, 127, Long lane, Bermondsey, aged fifteen, has had her eyes bad for five years, so as scarcely to be able to see her way, and was frequently confined to the house for months together; was under the care of a gentleman professing a knowledge of diseases of the eye for about three years, going to him three times a week; was recommended by Mr. FURNIVAL, of Westminster, to Mr. GUTHRIE, on the 9th of January, 1828, and has attended sometimes twice and sometimes once a week since that period.

On her first application, the conjunctiva of the palpebræ was thickened and granulated; that of the eyeball loaded with tortuous red vessels; the cornea, very opaque, having red vessels running in it, and several small ulcers on various parts of it; the cicatrices of others which had healed were very obvious; great intolerance of light. The Unguentum Hydrargyri Nitratis was applied the first day, and has been repeated whenever she attended, save once, when, from having caught a little cold, it was omitted. The only internal medicine she has taken during this period has been senna and salts about once a fortnight.

She found benefit from the first application, and at the end of the first month was greatly relieved. She considers herself to have been well the last two months, although she has continued to attend. At present the only appearances of derangement are several small spots, the cicatrices of ulcers on the cornea, which cannot be entirely removed.

The following letter from her father will best explain his feelings on the subject.

Sir,—I return you many thanks for your kindness, working such wonders on my daughter's eyes; as I consider they are nearly well, after being bad nearly five years, I believe from the measles. She came to you the 9th day of January, 1828.

Your obedient servant,

THOS. COURAGE.

127, Long lane, Bermondsey;  
July 25th, 1828.

#### CASE II. by the Patient.

##### *A Sketch of the Cause and Progress of the Disease in my Eyes.*

The last week in April, 1822, I was sitting at work, a window being open over my head, a cold hazy day, the wind at north-east. (I mention this circumstance to explain that I have, since that period, invariably experienced a relapse when the weather was similar.) Sitting as above described, I caught cold in my left eye, and had a sensation as if sand had been in it. In two days it became swollen and closed; the ball appeared a mass of blood. I was advised to apply to Mr. —: I waited on him accordingly. The fifth time of attendance, he told me I had lost my eye: he scarified the under lid, gave me a pill, and sent me home. By



going to this institution I heard of you. I waited on you the next day: you pronounced it was an iritis, and remarked it was not so far gone but might be restored; by good fortune I made timely application to you. You ordered me to lose sixteen ounces of blood from the temple by cupping; to take two small pills every two hours, which caused a heavy salivation in two days, a sore mouth upwards of three weeks, which did away that great mischief, and saved my eye from total destruction.

In about five weeks after, the inflammation was communicated to the right eye, and ever since it has been the most troublesome and painful, always most susceptible of catching cold. The inflammation abated, and relapsed from time to time; the lids became granulated. I was rubbed with the sulphate of copper three times a week successively for two years, using various kinds of drops, repeated cupping and blistering, pills, &c. I was rubbed with alum and sulphate of copper occasionally for another year, which eventually cleared the eyelids, the sight gradually diminishing all the time. At length I could not see my way, nor discern any object distinctly, until the last five or six weeks, the stimulating ointment had the happy effect of clearing the apparently muddy fog that so long embarrassed my sight. I can now see every surrounding object quite distinctly.

P. J. WALSH.

*April 30th, 1828.*

I have all along observed the efficacy, or otherways, of the former applications.

P. J. Walsh was taken into the Westminster Hospital in December 1827, and was discharged cured 30th April, 1828, during which time the Ung. Argenti Nitratis was the only remedy made use of.

CASE III.—Thomas Walsh, admitted a patient at the Royal Westminster Ophthalmic Hospital, March 23d, 1828; says he has had bad eyes more than five years. Has been under the care of Mr. — three months, and subsequently under Mr. — nine months; when Mr. — said he need not attend him any longer, as he could do no more for him; that he might perhaps derive some benefit from an issue under each eye, but that he would not promise any great amendment. Walsh would not submit to the issues without the prospect of a cure, and left the institution in consequence. He then consulted several practitioners, was under some two, others three months, but found no relief. After this he applied to several quacks and advertisers, with as little effect. He then allowed two months to pass over without doing any thing, when he heard of Mr. Guthrie, and applied here in consequence.

On his admittance, there was much chronic inflammation of the cornea and sclerotica, both irides irregularly contracted, the right cornea very opaque, and considerable tarsal inflammation.

*Treatment.*

March 22d.—R. Hydrarg. Submur. gr. iij. h. s.; Magnes. Sulph. ʒj. mane.—Applic' Ung. Argent. Nitrat. to both eyes.

25th.—Rep' Pil. et M. S.—Rep' quoque Unguent. Arg. Nitr.

April 1.—Repetantur omnia. 3d. Rep'. 8th. Rep'. 10th. Rep'.

After the first application of the ointment, he was much relieved; continued improving till the 10th of April, when the inflammation was all but removed, and the opacity of the cornea fast disappearing. He has been using the ointment up to this period, at first regularly, and afterwards once a week or occasionally. There is now no appearance of inflammation or opacity, and the irides are nearly natural.

July 31, 1828.

CASE IV.—John Wade, aged forty-five, suffered an attack of inflammation of the right eye in February, 1827, which shortly after extended to the left: for which he was bled, blistered, and physicked by several gentlemen until October, 1827, when he applied for assistance at the Royal Westminster Infirmary for Diseases of the Eye. He was then unable to see his way, and was obliged to be led; the conjunctiva lining the lids was very much thickened and granulated, the cornea opaque, the conjunctiva of the ball very vascular, discharge, both watery and puriform, considerable. He was directed to use the Argentum Nitratum ointment, which in a short time relieved the most urgent symptoms; but, having to attend from Chelsea, was exposed to the frequent changes of the weather during the winter and spring, and suffered several attacks of acute inflammation.

On the 21st of June, 1828, he was admitted into the Westminster Hospital; was directed to be well purged, and to have the Ung. Argent. Nitrat. applied every third or fourth day, as his own feelings dictated. Under this treatment he gradually improved.

On the 2d July, five grains of the Pil. Hydrarg. were ordered to be taken every night, and some house aperient medicine in the morning.

August 2d.—The mouth is slightly sore from the pills, which are to be discontinued. The eyes have regularly improved since his admission into the hospital, and without any deviation; the corneæ are cleaner; the thickening of the lids is nearly gone, although the conjunctivæ lining them are still villous.

This case has been selected because it remains under treatment.

## CASE V. by the Patient.

Pearson Smith applied in January, 1828, to Mr. Guthrie, having been six years suffering from sore eyes, for which he had sought relief in vain from many gentlemen; and was then so nearly blind as not to be able to see a post. The black ointment

was used, with almost instant relief, (the Ung. Argent. Nitrat.): attended regularly the first two months, afterwards at intervals, until April, when, thinking himself well, he went to work. Suffering a slight relapse in June, has again attended, and feels himself nearly well. Considers he owes his cure to the black ointment alone.

CASE VI.—Ann Adnam, aged thirteen, has been unable to open or use her eyes until lately for the last twenty-two months, although she had been constantly under treatment at the Royal Westminster Ophthalmic Hospital for the first year. She was then put under the care of other persons; but, finding her eyes getting worse, she was readmitted into the Ophthalmic Hospital, April 8th, 1828, and had the Argent. Nitrat. ointment applied, which has been continued twice a week ever since, with an occasional dose of calomel, with salts and senna. She can now open the eyes; the corneæ are much clearer, and she can see. She is very subject to relapses on the slightest cold, but there is now every appearance of her getting well. Until the Ung. Argent. Nitrat. was applied, no other remedy seemed to be of the least use.

July 31, 1828.

CASE VII.—Thomas Porter, aged eighteen, has been suffering from chronic inflammation of the eyes, more or less, for the last five years, and particularly for the last two, so as to be unable to work or get his bread; applied at the Ophthalmic Hospital, 24th July, 1828, in this state. The Unguent. Argent. Nitrat. was used on the 24th, 26th, 29th, and August 2d; on which day he says, "he considers himself nearly well; the pain is entirely gone, and he can see a great deal clearer." The morbid vascularity of the eyes has disappeared, but the corneæ bear the cicatrices of several ulcers.

CASE VIII. *Acute Inflammation.*—William Bacher, aged thirty-four, applied February 26th, 1828, with acute catarrhal inflammation, of three days' standing in the right eye, and two in the left. It began with itching, followed by pain, as if something was in the eye, attended by a discharge of hot water, which prevents his sleeping, from the quantity which fills the eye, and forces him to open the lids with his fingers; cannot bear the light, and there is a difficulty in opening the eyelids, from the thick matter which in the night glues them together; pain in the head and over the eyes; the right suffused of a yellowish colour, and streaked with red vessels, arborescent, patchy with slight extravasation; some vessels running straight up to the cornea, others arborescing; streaks of mucus in the folds of the conjunctiva; edges of the lids slimy. Separating the lids relieves the uneasy sensations.

The Ung. Argenti Nitratis gr. xv. ad 3j. applied.—No internal treatment.

27th.—The pain from the ointment lasted until seven in the evening, (six hours); discharged a good deal of water from the eyes in the night, but was much easier, as there was very little matter after seven in the evening; they therefore stuck together but slightly, nothing in comparison with the night before. There is now the same intolerance of light; but little discharge of water; very little sandy feel, or pain, perhaps once an hour; eyes are not so red, but the redness is more in patches; headache better.

Apply warm water only.

28th.—Complaints all returned last night at twelve o'clock, and thinks himself as bad as ever: begs to have the ointment applied, which was done.

29th.—Is again better. Slept well last night; the eyes discharged water freely, but the lids did not adhere together; has little or no pain; bears the light better; conjunctivæ appear redder.

Apply the ointment gr. x. ad ʒj.

March 1st.—The ointment gave pain for three hours, but says he is much better, and slept well. No application.

2d.—Pain came on yesterday afternoon, although it did not prevent his sleeping well.

Apply the unguent.

3d.—Slept well last night. Free from pain, and has very little discharge; bears the light better; conjunctivæ red, but less so than hitherto, and more of a yellowish red. No application.

4th.—Right eye rather painful last night; left free from pain; both are better.

Repeat Unguent. Nitrat. Argent.

5th.—Nearly well, and wishes to go to his work.

10th.—Not quite well, but is obliged to work, having a large family.

Repeat the Unguent. Nitrat. Argent.

13th.—The Ung. Hydrargyri Nitratis to the eyelids at night.

18th.—Unguent. Argenti Nitratis.

April 1st.—Has not attended since the 18th. There is some slight chronic inflammation of the lids remaining, but thinks nothing of it.

N.B. Has had eight in the family affected in a similar manner, and all cured by the same means.—Lives 23, Cuctrop street, Westminster, and is in the employ of Mr. Morris, of Northumberland street.

CASE IX.—William Meyers, aged fifteen. April 3, 1828; four days ill; others of the family in the same state. Outside of the upper lid red and swelled; conjunctivæ of a patchy redness; complains of an itchy, sandy feel, giving great pain when the eye fills with water, which it frequently does; the discharge feels gummy, and causes the eyelids to adhere; the conjunctivæ are red, and in patches; redness principally from the circumference;

streaks of mucus in the folds of the conjunctivæ; cannot bear the light or fire.

Unguent. Argent. Nitrat. to both eyes.

5th.—Is better.—Repeat Unguent.

7th.—Continues improving.—Unguent. to the right eye only.

9th.—Repeat.

13th.—Relapse of inflammation in the right eye, which was getting well on the 9th; supposed from being absent.

Unguent. Argent. Nitrat.

15th.—Better.

19th.—Discharged cured, with others of his family, younger than himself, who were in a similar state.

Case kept by Mr. PILKINGTON. Lives 4, West street, Soho.

CASE X.—Jane Simpson, aged twenty-eight, applied 10th April, 1828, having been ill one month, during which time she used warm water; complains of great pain in the eyes, with a discharge of hot tears and of gum (mucus), which has excoriated the skin of the surrounding parts; cannot bear the light.

Apply Unguent. Argent. Nitrat.

12th.—Says she is well, and appears to be nearly so, having been cured by one application. She attended until the 13th May with the child.

CASE XI.—Emily Simpson, aged nine months, has had sore eyes ever since she was born, for which the mother applied breast milk and rose-water ineffectually; admitted April 15th.

Apply Unguent. Argent. Nitrat.

13th.—Repeat. 17th.—Repeat. 24th.—Repeat.

29th.—Both eyes are now nearly well.

Repeat Unguent.

May 6th.—Repetatur Unguent.

13th.—Discharged well.

Case kept by Mr. ANGUS. Lives 41, Wellington street, near Manor street, Chelsea.

CASE XII.—Ellen Forshaw, aged twenty-two, April 10, 1822; slight inflammation of the inside of the eyelids, with a hot watery discharge, and some mucous secretion, causing them to adhere at night; intolerance of strong light.

Pil. Hydr. Submur. gr. vj.; Magnes. Sulph. 3j.—Ung. Argent. Nitrat.

17th.—Returned thanks, being well. Says the application of the ointment was painful, but it cured her.

Case kept by Mr. PILKINGTON. Lives in Mill street, Berkeley square.

CASE XIII.—Barney Rowlands, aged thirty. April 17, 1828: inflammation of the conjunctiva of the right eye, of three days'

duration; there is considerable pain, and some intolerance of light. The disease seems disposed to extend to the cornea. Had inflammation of the left eye a short time ago.

Ungent. Argent. Nitrat. Magnes. Sulph. 3j.

19th.—Nearly well.

Pil. Hydr. Subm. gr. vj. Magnes. Sulph. 3j. Ung. Argent. Nitrat.

21st.—Well.—Case kept by Mr. HALL.

CASE XIV.—Charles Fairhead, aged nineteen. May 10, 1828. Common inflammation of the right eye, and with ulceration of the cornea of the left.

Cucurb. c. ferro ad 3xij. Pil. Hydr. Subm. gr. vj. Magnes. Sulph.—Hot water for fomentation.

12th.—Better.

Repeat Pil. et Ma3n. Sulph.

13th.—Right eye well; left worse.

Cucurb. c. ferro ad 3xvj.—Rep<sup>r</sup> Pil. et Magn.

15th.—There being little or no improvement, the Ung. Argent. Nitrat. was applied to the left eye; pills and salts repeated.

17th.—Repeat every thing.

22d.—The ointment has been of great benefit to the left eye.

Repeat.

27th.—Repeat. 29th, June 3d, 7th, 12th, discharged cured.

Case kept by Mr. JAMES.

[To be continued.]

#### PHYSIOLOGY.

*On one of the Functions performed by the Liver, more particularly in the Fœtus, and in Amphibious Animals.* By EGERTON A. JENNINGS, Member of the Royal College of Surgeons.

IN this paper I shall endeavour to shew that the liver, like the lungs, possesses the power of *decarbonising the blood*. I am aware that other persons have entertained a similar opinion, but several facts are here detailed which have not been, I believe, previously observed; or, at least, have not been publicly stated.\*

If we examine the circulating system in different animals, we shall find some that require the blood to be constantly exposed to the influence of oxygen; others that can support life for a considerable time without such exposure; and a third class that live without ever having their circulating fluid exposed to its influence.

In the first class, or those that require a constant supply of oxygen, the greatest diversity is observable in the apparatus

\* See Ornithologia, by J. JENNINGS, page 55.

by which the blood is exposed to its influence. In those animals which have a double heart, and double circulation, lungs are used; in those that have a single heart, and a single circulating system,—under which head fall fishes and the *arachnida*, or spider class,—gills are the organs employed; while, in the incubated egg, oxygen exerts its influence on the blood through the medium of a membrane attached to the shell. Thus we see in those animals to whom respiration, or a process similar to it, is most necessary, that a diversity of means are used to effect the same purpose. But in these, and in all other animals in whom a circulation exists, a liver is found, composed of an aggregation of minute glands, through which a large portion of the blood, when loaded with impurities, is obliged to circulate.

I have said that in all animals that have a circulation a liver is found, and in no others does it exist; although they may have a stomach for the digestion of food; and in some of them, as will be shewn hereafter, even a fluid similar to bile is secreted.

Those animals which belong to the second and third classes, into which I have for convenience divided them; namely, those that can support life for a considerable time, and those that can live altogether, without the exposure of their blood to the influence of oxygen, shew most decidedly the important connexion that exists between the liver and the circulating system.

In the former of these—amphibious animals, and those birds that are good divers,—we find that, in proportion as they are able to suspend the process of respiration, the liver increases in size. Amongst birds, the Divers, or those arranged under the genus *Colymbus*, have the smallest lungs and the largest livers. The cormorant, also, (*Pelecanus Carbo*,) is an excellent diver, being able to suspend its respiration for a considerable time. Its liver is very large, while its lungs are comparatively small. In this bird, (as also in the other divers,) not only does the blood from the mesenteric, splenic, pancreatic, and gastric veins pass to the liver, but, from the very large vessels by which the mesenteric vein communicates with the veins emptying themselves into the cava and iliac veins, the blood passes with equal facility either through the vena portæ or the vena cava. So that when the bird is deprived of air, by diving, an additional quantity of blood is passed through the liver, in consequence of the pulmonary circulation being obstructed. In so small a bird as the *Fulica atra*, or common coot, I have, without

difficulty, injected the system of the vena portæ from the iliac vein.\*

The structure of amphibious animals shows a still more complete arrangement for the transmission of blood to the liver, when the respiration is obstructed. In them the liver is always very large. In some of them, as the frog, the circulation is carried on by a single heart; so that, when the lungs do not perform their functions, the obstruction of the circulation through the branches distributed to them does not interfere with the general circulation. In others, as the otter, although a double heart and circulation is found, a communication exists between the two sides of the heart, through the foramen ovale, so that when the pulmonary circulation ceases, the blood passing immediately from the right to the left side of the heart, a single circulation, like that in the frog, is immediately established.

In those animals that have the circulation carried on entirely without the blood being exposed to oxygen, the liver is proportionably larger than in any other. Thus, in the fœtus in utero, the liver is one of the first organs developed, and is by far the largest organ in the body. It is thus large, too, at a time when it should be the smallest, if it be true that the sole function of the liver is the secretion of bile to assist in digestion.

If the early formation of an organ be any proof of its great importance in early life; and if the service to which it is first devoted be any guide to the function it is ultimately to perform, the liver must be of the greatest importance to early life, and its function must be subservient to the circulation. The first of these assertions is proved by examining the incubated egg: for we find that the liver is developed as early as the fourth day of incubation, although at that time the heart is not developed, and the lungs do not appear until a day or two afterwards. That its function is subservient to the circulation, is proved by the veins first formed all terminating in the vena portæ; the circulating fluid being thus obliged to pass through the liver. As the gallbladder does not appear until a day or two later, the liver cannot be engaged at this time in the secretion of bile.

Having thus endeavoured to shew how closely the liver is connected with the circulation of the blood, I shall, in the

\* It may be mentioned also as a curious fact that birds of the Struthious class, (as the ostrich and cassowary,) from the rapidity with which they run, and are therefore liable to have their respiration suspended, have also large livers and small lungs.



next place, endeavour to prove that the service it performs in the digestion of the food is but of secondary importance.

M. CUVIER has proved that the conglomerate glands which constitute the liver exist in all animals that have a circulation, and do not exist in any that have not a circulation, although in them digestion takes place. Amongst insects this fact is strongly marked. They are divided into two great classes; the *Arachnida*, comprising the spiders and scorpions, and the true *Insecta*, which comprise all other insects. In the former a circulating system is found, and also a liver: in the latter there is no circulating system, and no liver. What is particularly remarkable, and perhaps shews more decidedly than any other fact that the liver is subservient to the circulation, is this, that, although in the latter, there being no circulation, no liver exists, yet bile is secreted for the purposes of digestion from small, slender, filiform vessels, which empty their secretions into the alimentary canal. If the conglomerate glands constituting the liver in all animals having a circulation, be merely formed for the secretion of bile, why this deviation from the ordinary structure, which prevails in animals so closely resembling them in other respects, as the *Arachnida*? Moreover, we learn from the examination of some of the *Zoophytes*, that digestion may take place where a stomach only exists,—no liver or alimentary canal being present; the secretions from the stomach itself effecting all the necessary changes in the food.

Are we not, then, justified in concluding that, as we find digestion taking place in some animals without a liver, while in others bile is secreted from small vessels into the alimentary canal, this organ is but of secondary importance in the process of digestion.

On the other hand, are we not also justified in concluding that an organ, which is universally found where there is a circulating system, and there only, which is of comparatively small size where the respiration is perfectly performed by lungs,—which increases in size in those animals which have gills as an imperfect substitute for lungs,—which is found still larger in amphibious animals, whose circulation is occasionally suspended,—and which is the largest organ in the body in the foetus, whose circulating fluid must be purified entirely without exposure to oxygen,—are we not, I say, justified in concluding that the primary function of such an organ must be similar to that of the lungs: that it must be subservient to the circulating system.

It may be objected that if, as I suppose, the liver does in amphibious animals perform the function of the lungs, these

animals could live entirely without respiration. But how frequently do we see in the animal economy, when two organs are engaged in performing the same function, that one organ is able to perform almost the whole duty of the other, and yet cannot entirely dispense with its assistance. This is particularly the case with the skin and kidney. When one secretes copiously, the other enjoys comparative rest. From the length of time that some diving birds and amphibious animals remain under water, it is certain that death would result if the blood were not deprived of its impurities by some means; and certainly their anatomy shows that provision is made for the passage of an increased quantity of blood through the liver, that organ being proportionately increased in size to enable it to perform so important a function.

With regard to the function which I suppose it to perform in the fœtus, it may be said that the placenta purifies the blood. I grant the importance of the placenta; but we know that the principal change produced in the blood is the separation of carbon from it. This the placenta cannot effect, for it throws off nothing; while we know that the liver separates an amazing quantity of carbon during uterine life. This is proved by the quantity of carbon contained in the meconium; which secretion, as it cannot be of any use in the digestive process, can only be looked upon as a quantity of useless matter thrown off from the general system.

In what I have hitherto said it has been my object to point out, more particularly, the functions of the liver in amphibious animals and the fœtus. In them the other organs concerned in the purification of the blood being less perfect, the liver is found proportionably more developed. But, in animals that have a perfect respiration by lungs, even in man himself, we may observe many facts that point out the close connexion existing between this organ and the organs of respiration.

All who have observed the human subject must be aware that the liver is assisted by other organs in the performance of its function. For instance, the well known fact, that after severe burns, which have rendered a large portion of the skin unable to perform its function, persons will frequently die of suffocation: this shews that the lungs and skin both perform the same function, or so great an oppression of the lungs could not be produced by such a cause.

When a European is exposed to a tropical climate, where, from the state of the atmosphere, but little carbonic acid is formed during respiration, in what way do we find the circulating fluid purified? For a short time the skin, which is

generally acknowledged to assist the lungs, acts profusely. Presently, however, the skin becomes dry and arid, and bile is secreted in such quantities as completely to disorder, instead of assisting, the digestive process.

It is true we cannot point out the manner in which the liver effects its changes in the circulating fluid, with the same precision that we can explain the function of the lungs; but, while there are so many circumstances connected with secretion that we are unable to account for, let us not presume to say that an effect cannot be produced because we cannot follow nature through every step of her process. Let us rather carefully observe the organs she finds necessary for effecting her different purposes, and acknowledge their use, though unable to account for their actions.

*Leamington Spa, Warwickshire ;  
August 8th, 1828.*

P.S. Since the above paper was written, I have had much pleasure in reading a note by Dr. ELLIOTSON, in the edition of BLUMENBACH'S Physiology which he has recently published, in which he has mentioned many facts tending to support the same view of the function of the liver which I have endeavoured to advocate.

#### WOUND OF THE ABDOMEN.

*Case of a punctured Wound of the Abdomen, accompanied with Injury to the Intestinal Canal, and to some Blood-vessel of considerable size. Communicated by H. C. FIELD, M.D. Member of the Royal College of Surgeons in London.*

ON the evening of the 22d of November, 1824, I was called to see Captain —, who, I was informed, was about thirty-five years of age, and had, in a fit of irritation, inflicted some serious injury on himself. On entering his room, I found the floor covered with blood, and himself extended on a sofa apparently lifeless. I could not feel any pulse, but immediately gave him a little wine, which he swallowed with difficulty. I soon perceived that blood was flowing in considerable quantity from a wound in the abdomen, which was situated at the left side of, and near to, the umbilicus. At this moment I was assisted in the examination and treatment of the case by my friend Mr. TAGGERT, member of the Royal College of Surgeons in Ireland. We soon learned that the wound had been inflicted by a large carving knife, which, from the appearance it presented, and from the account we received, as well as from the nature of the wound, we judged had passed into the cavity to the distance of four or five

inches, in a direction obliquely backwards, downwards, and to the left side. The blood, which was of a dark colour, flowed freely in one continued stream, and the hemorrhage was so excessive as to excite our apprehensions of immediate dissolution. However, on introducing to the bottom of the wound long dossils of lint, dipped in turpentine, the ends being kept outside the wound, and applying over them graduated compresses and a bandage, we succeeded in a short time in arresting the further flow of blood. A cordial opiate was next administered. A feeble pulse at the wrist could now be felt, but he appeared in a sort of faint; he was bathed in a cold sweat, his extremities lay still and motionless, he vomited at intervals, his urine and feces passed unconsciously to him, and his respiration was slow and laboured: in this state, almost bordering on death, he remained for some hours. About this time the vital powers first showed a disposition to reaction: he expressed in a few broken accents the general uneasiness he felt, and complained of pain and numbness in the lower extremities, particularly in that of the left side. This, with a peculiar restlessness, disturbed him during the remainder of this night, which was passed without any sleep, notwithstanding the anodyne he had taken.

November 23d.—A medical attendant remained with him during the night. There was no recurrence of hemorrhage; he still appears in a state of extreme debility, and feels great nausea, which occasionally increases to hiccough and vomiting; he also complains of numbness and pain extending down the left limb to the foot; slight tenderness about the wound on pressure; pulse 120, feeble and irregular. With a view of relieving the state of the stomach, as well as of allaying the general irritability, the saline mixture was directed every third or fourth hour, in a state of effervescence, with fifteen drops of laudanum in each draught. Fomentations to the abdomen.

Evening.—He still complains of the pain and numbness in the thigh and legs; the tenderness of the abdomen on pressure is augmented; thirst; pulse 100, and feeble; tongue white and furred; skin hot and dry; stomach relieved.

Ordered to continue the effervescing and opiate draughts, at longer intervals. An emollient enema every fourth hour; and *Olei Ricini* ʒss. in the morning.

24th.—Has had some quiet and refreshing sleep during the night, and feels himself relieved this morning. Pulse ninety; skin cool; no sickness of stomach. Has had two copious alvine evacuations, each containing a quantity of dark clotted blood. Pain and numbness in the affected limb not so troublesome; tenderness of abdomen on pressure continues.

Ordered, the enemata and fomentations to be repeated; also the effervescing mixture, with small doses of Tartar Emetic.

25th.—Has had several copious evacuations, each containing clotted blood. Fever much less; pulse eighty-six; tongue still foul; pain and numbness in the extremity still distresses him; there is little or no pain about the wound. This day the dressings were removed for the first time, when a quantity of feculent matter, mixed with blood and pus, was discharged. The wound was then dressed superficially; an oil draught directed; and absolute rest enjoined.

26th.—Has had some refreshing sleep, and is much better this morning. Passed several evacuations: the quantity of blood in each has considerably diminished.

27th.—Continues to improve. The evacuations are free from blood. He now complains of occasional startings in the left limb, in addition to the pain and numbness, which still continue, though in a less degree. The wound discharges healthy pus, unmingled with feculent matter. He is free from fever.

I think it unnecessary to delay my readers by detailing the daily reports. He continued to improve daily: the wound gradually healed; the peculiar sensations of numbness, pain, and tingling in the left leg and thigh, however, continued, and were occasionally very distressing, although, on the whole, less severe and frequent in their attack. On the 8th of December, he attempted to stand, but the left leg was so weak as to yield beneath his weight.

January 2d.—Since the last report, his health and strength have considerably improved. For some time the left extremity was nearly paralytic, though frequently attacked with paroxysms of pain and numbness; which latter he describes as more troublesome and distressing than the former. These paroxysms, however, are now so slight and so few that every hope may be entertained of his perfect recovery at no very distant period.

I cannot close this brief statement without directing the attention more particularly to some of the circumstances of this interesting case, which I conceive are calculated to excite our astonishment, as well as our admiration at the extraordinary resources of nature, whereby she is enabled, under the most unfavorable circumstances, to preserve the life of an individual.

In this case we have evidence not only of the peritoneum, but also of the intestinal canal, being opened. I should presume, from the feculent quality of the discharge, that some part of the colon was injured. What blood-vessel was wounded, cannot with any certainty be affirmed, but most probably some large branch of the vena portæ, such as the inferior mesenteric, or one of the colic veins. I conceive there can be no doubt, from the peculiar sensations complained of in the lower extremity, that some branches of the lumbar

plexus of nerves must have been divided, or otherwise injured, at the time of the accident.

It appears a strange anomaly in the history of wounds of the abdomen, that so little peritoneal inflammation was excited in this case, notwithstanding the effusion of blood and feculent matter. May we not in some degree account for the fortunate absence of this so common a result in general, either by the copious hemorrhage which immediately followed reducing the system to so low a condition as to retard reaction in the circulatory organs, and so to oppose the attack of local inflammation or general fever? or a coagulum of blood may have so formed around the wounded vessel, as that further bleeding and effusion into the cavity were restrained until the adhesive inflammation set in, by means of which a permanent recovery was effected in a surprisingly short time; for we find him in less than a fortnight free from every unpleasant symptom, excepting the pain and numbness in the lower extremity, which may be referred to the injury of some of the nervous filaments of the limb.

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#### ARTIFICIAL ANUS.

*Memoir on a new Method of curing Artificial Anus.* By M. DUPUYTREN. Condensed from the *Memoires de l'Academie Royale de Medecine*; and illustrated by Wood-cuts.

ARTIFICIAL anus has been generally looked upon as incurable; but I trust that, from the details I am about to give, it may hereafter be ranked among those maladies which admit of relief, without much difficulty or danger.

It was necessary that I should first ascertain the exact anatomical condition of the parts in this affection. In the natural state, the aliments traverse, in a given time, the whole length of the intestinal canal, and undergo, in each of its parts, a series of changes; as the result of which, they furnish the elements of nutrition; after this, the residue passes on, and is expelled by actions which are under the control of volition.

The successive elaborations, the absorption of the chyle, and the evacuation of the residuum, constitute a series of conditions indispensable to the regular action of the alimentary canal. Hence it happens that if, in consequence of any disease, these numerous conditions are altered, the digestion becomes disturbed, and more or less diminution of nutrition results. This is what takes place in preternatural anus; a malady which consists either in an original or accidental aperture in the alimentary canal, at a point different from the proper anus, by which the aliments, or feculent matters, are

evacuated involuntarily, and before they have undergone the necessary changes. The opening is rarely congenital, but almost always results from injuries, with or without loss of substance, inflammations, abscesses, and hernia, terminating in the destruction of a portion of the intestine. I mean only to treat of the latter variety, artificial anus.

This condition is by no means easily produced; and, even where life can be preserved only by this means, nature and art united often fail to overcome the difficulties opposed to it.

The establishment of an artificial anus requires the co-operation of many circumstances. It is necessary that the intestine in which the new anus is to be formed, be placed opposite to that part of the abdominal parietes through which the matters are to make their exit; that it admit of being kept in this situation, or, still better, that it be fixed in the opening; that a ready communication can be kept up between this external aperture and that in the bowels; and, above all, that these be capable of forming adhesions to the neighbouring parts: circumstances, the simultaneous occurrence of which are rare. Once established, the artificial anus presents an opening formed at the expense of the intestine and abdominal parietes, intimately united together. This opening, generally round, but occasionally irregular, varies in size, from a few lines to an inch or more in diameter, and is surrounded by radiating folds of the skin plaited upon itself. The border presents a cicatrix, uniting the skin of the belly to the mucous membrane of the bowel.

These adhesions are the result of inflammation, and always commence in the serous surfaces of the intestine and abdominal cavity; and thence extend to the other textures, soon reaching the skin and the mucous membrane. In hernia, the adhesions precede the destruction of the parts, and thus prevent the escape of the alimentary matters into the abdomen. In wounds, again, they do not take place till after the division of the intestine; and this is the reason why these are so frequently fatal. Their extent varies: it is from half a line to a line, in most cases; but in others it is several lines, and sometimes, though rarely, half an inch. But, as these adhesions never extend very far along the intestines, it results that a cul-de-sac is formed, the opening of which presents towards the belly, and the bottom of which corresponds to the skin. Into this cavity the viscera are protruded, in some individuals, so as to produce herniæ, obstructing, or even altering, the position of the artificial anus.

The opening of the anus is almost always occupied by some part of the internal membrane of the bowel, irregularly

puckered. Not unfrequently protrusions of the bowel take place, the mucous membrane becoming irritated and inflamed. This generally occurs at the upper end of the intestine, sometimes at the lower, and occasionally at both at once; but the eversion always forms a curve, owing to the shape and resistance of the mesentery. Its length varies from one to fifteen or more inches; and it may be easily imagined how much it must add to the pain and inconvenience.

Between the opening of the skin and the bottom of the artificial anus, there is a kind of funnel-shaped cavity, which SCARPA has described. This is formed by the various parts having been brought to a state identical with that of mucous membrane. The skin forms its border, the intestine its base. Its length, direction, form, and dimensions, vary infinitely, and have very great influence on the cure of the artificial anus. The greater the capacity of this funnel, the greater in general the disposition on the part of nature to cure the infirmity, or to second the efforts of art in her doing so.

It is in the bottom of this cavity that the most remarkable and important circumstances exist. There the orifices of the two extremities of the intestine, and the partition which separates them, are to be found. Of these openings, one belongs to the part of the intestine; and, in consequence of the intestinal matters always passing through it, it is the larger and freer of the two. The other orifice belongs to the inferior extremity of the intestine; and as it does not receive any, or at all events but very little, of the above matters, it is generally narrow and puckered.

Beyond these two orifices are the two extremities of the intestine, of which they are the terminations. These extremities, which are villous, and covered with mucus internally, and with serous secretions externally, retire into the abdomen, sometimes crossing and sometimes parallel, but most frequently separating from each other at a greater or less angle.

Between the two orifices is a projecting angle, more or less marked. This projection is produced by the union of the sides of the intestine. Formed by the part of the bowel which has been spared on the side next the mesentery, this projection juts forwards, nearer to or farther from the skin, according as the intestine has suffered a greater or less loss of substance, and undergone more or less change in its situation. It is small when the intestine has only just been pierced by a wound or slough, and when it runs along the posterior surface of the parietes of the abdomen in the natural direction of its curve. But it is very great when the



whole circumference of the intestine has been destroyed, and when, in consequence of this, the two extremities meet at a sharp angle, and, *à fortiori*, when they are parallel. In the former case, there exists between the two orifices a kind of gutter, which may direct the matters from the upper one towards the lower: this, therefore, is the kind of preternatural anus most easily cured. In the latter case, there is no vestige of this gutter; and the projection of which we speak, placed between the two ends of the intestine, forms a barrier which the intestinal matter can neither break down nor pass: this is the kind of preternatural anus most difficult to cure.

This projection does not divide the funnel into two equal parts; or, if this be the case at first, it does not long continue. Thrown aside by the passing current of matters from the upper portion of the bowel, it becomes applied to the lower orifice, acting as a valve: hence the difficulty often experienced in finding the lower opening.

This projection, examined from the cavity of the intestine, has the form of a crescent, the angles of which presenting from the concavity towards the convexity of the bowel, are lost on the inside of the gut, or on the borders of the artificial anus. Examined from within, it is seen to unfold itself, and the two parts of which it is composed receive the mesentery between them. This division of the buttress at its base is the result of its mechanism: it is not formed of one single wall, except at its sharp edge; at every other part it consists of two sides, which separate from each other on entering the abdomen.

From this it results that the openings of the two ends are separated by a double partition; that, in order to pass from one of these openings to the other through the intervening partition, it is necessary to traverse the peritoneal cavity. Hence arises the difficulty and danger of attempting to establish a communication between the two portions of the canal through the projection which separates them.

The buttress and double partition are not fixed so firmly but that they can advance or recede: they are attached to the mesentery, and follow to a certain extent the movements communicated to them by it. The distribution of the mesentery merits consideration. Stretching from the anterior part of the vertebral column to the concave part of the intestines, it has, in the natural state, no greater extent than between those two points: it is always more or less dragged when the intestine leaves its natural situation, as in most cases of hernia and penetrating wounds of the abdomen, with protrusion of the bowels. Compelled to follow the gut

which is displaced, it forms a kind of cord from the vertebral column to that part of the bowel most distant from it. This cord is tense, and bends the body forward. This is particularly observed in cases of hernia which are adherent. In consequence of this distribution of the parts, the projection or buttress which has been described, as well as the intestine itself, is constantly pulled inwards by the mesentery; and hence we easily perceive the influence which the position and movements of the body must have on the cure of this malady. This dragging, however, is not free from danger, as I have known it sufficient, in two cases, to destroy the adhesions which united the extremities of the bowel to the parietes of the abdomen, thus producing effusion into the peritoneum.

Several individuals, cured of artificial anus without operation, having entered the Hôtel Dieu after several years, and having died of diseases unconnected with this, I examined the parts, and, in place of finding the intestine fixed to the inner surface of the abdominal parietes, I found it free and unattached! I might have suspected some mistake, had I not found a fibrous cord extending from the intestine to the part of the abdominal parietes corresponding to the artificial anus. Thus the efforts of nature were not limited to closing up the preternatural opening: they had even separated the intestine from the parietes of the belly; they had restored its natural curve and mobility, by elongating the cellular substance in the form of a cord.

Nor are these the only changes which take place. The upper extremity of the bowel, excited by the passage of the intestinal contents, acquires increased activity and size; a change in which the mesentery and lymphatic glands participate. The lower portion, on the other hand, ceasing to perform its functions, gradually wastes, till at length one part of the canal resembles that of an adult, and the other that of a new-born infant. Nevertheless, the lower end does not become obliterated, nor is it even entirely empty: it is filled to a certain extent with the usual intestinal secretions, which are converted into a white mass, of a soft consistence and albuminous appearance, and which may remain, without undergoing decomposition, for months or years, till it is either voided by a natural effort or washed out with enemata.

In the natural state, the intestine free, and floating in the abdomen, though attached to the mesentery, describes a series of curves, along which the contents pass without difficulty; but no sooner is an artificial anus established, than a portion of intestine, directed towards a particular point of the abdominal parietes, forms a triangle, the base of which is towards

the mesentery, and the sides of which are formed by the upper and lower extremities of the bowel.

With regard to the evacuation of the intestinal contents by the artificial anus, the opening is not surrounded by any muscular apparatus capable of acting upon it at will; and the aperture is, therefore, always open to the matters which are constantly arriving. Besides, even if there were the necessary muscular arrangement, the contents of the bowels, deprived of a reservoir where they can be retained and formed, would constantly require to be voided. There is thus a constant flow of matters, varying according to the state of digestion and the situation of the opening; and hence the person of the patient is affected with an offensive smell, and the parts are liable to excoriations, &c. All the contrivances to obviate these evils, do so very imperfectly; and compression, so as to retain the matters within the bowels, often gives rise to such mischief as to render its abandonment necessary.

Almost all preternatural anuses which consist of simple perforations of a point in the circumference of the intestine, whether attended by hernia or not, are curable; and we also succeed very frequently in those cases of artificial anus in which a third, or even half, the circumference of the gut has been destroyed for a few lines, or even an inch; but, when the loss of substance embraces more than two-thirds or three-fourths of the circumference, the cure becomes proportionally difficult; for then, from the contraction in the gut, the buttress and partition become very prominent and formidable obstacles to the passage of the fecal matters. The result of the cases that have occurred to me, as well as of those which I have collected from different authors, is that the artificial anuses susceptible of cure are to those which obstinately resist every method as three to one: that is, two-thirds are cured by the ordinary methods, and the remainder require a more efficacious plan of treatment. The difficulties that oppose themselves to the cure are the loss of substance, and consequent contraction of the gut; the adhesion of its extremities; the changes in its direction and mobility; but especially the projection and double partition placed between the two extremities.

The loss of substance cannot be repaired, and it is necessary to respect the adhesions, so that it only remains to attack the partition and buttress.

It would seem, at first sight, that the simple section of these parts, either by the scissors or other cutting instrument, would be sufficient to re-establish the communication between the two ends of the gut; and such would be the case

if the two sides of the projection adhered together; but a moment's reflection will shew that this operation would produce almost immediate death, by effusion into the cavity of the abdomen.

The two ends of the intestine which form the artificial anus are covered on all sides by the peritoneum, and this membrane forms a cavity around them. This circumstance, which forms an insurmountable obstacle to an immediate division, affords the very means by which the double partition separating the intestines may be divided without opening into the cavity. One of the most remarkable properties of serous membranes is to form adhesions when inflamed, and kept in contact: if, then, an inflammation could be excited between the two surfaces of the intestines, I conceive that I should afterwards be able to perforate and divide the parietes of these intestines, and establish a communication between the two extremities, without the risk of effusion.

My first idea was to pierce the partition with a needle, which would convey a thread to fill up the void that had been made: this thread, after having excited inflammation, might afterwards be replaced by a skein, increasing in size from day to day; so that, after some time, it might be large enough to destroy the partition entirely. Their cavities would then become reunited, and means might be adopted, without inconvenience, to prevent the passage of the feces by the artificial anus. These suggestions were the result of observation only. I wished to strengthen them by direct experiment upon living animals: with this view, I traversed the intestinal canal of several dogs with needles armed with threads, which I left in the wounds, returning the intestines into the abdomen. No effusion took place in any instance; the wounds and threads, after some time, were found surrounded by adhesive inflammation; the ligatures were either voided by stool, or taken away by gently pulling them; the openings made by the needles, and those in the parietes of the intestine, were always found closed, adhesion having taken place between the peritoneal coat of the punctured intestine and the neighbouring parts. A still more decisive experiment, attended with the same result, was made by forming an artificial anus in a dog.

In May 1813, a man named Aucler was admitted into the Hôtel Dieu, thirty-six years of age, who had laboured under strangulated hernia for five days, the consequence of which was the formation of an artificial anus. At first pressure was tried, but this produced symptoms so severe as to compel me to abandon its use. An attentive examination shewed me

that the two extremities of the gut were perfectly on a level, and that their orifices were only separated by a projecting buttress and partition. After considering the best method of perforating this, I determined to pass a needle through it, leaving in the thread with which the needle was armed. The operation was short, and not very painful. Some days afterwards a skein was carried, by means of the thread, into the opening made in the partition. The size of the skein was increased at each dressing; and eight days after pains were felt in the abdomen, and some feces passed by the anus. Encouraged by this, the size of the skein was increased, till it produced a laceration of the buttress: this caused no ill effect, but still stercoraceous matter continued to pass from the artificial anus. Considering that those parts of the partition situated above the opening made by the needle might adhere together, and might be divided with as little danger as the parts situated below, this part was divided, half a line at a time, with a pair of blunt-pointed scissors, directed upon the forefinger. This was done at intervals of three or four days; and the incisions, very cautiously made, and which never passed the limits of the adhesions, enlarged the communication so much that all the feces soon came away by the natural anus. Compression was then used upon the artificial anus, and would most probably have closed the opening, but the man, wishing to hasten the cure, urged me to make a fresh attempt, and I had the weakness to do so. Some irregular portions situated round the aperture were tied, and excised: I afterwards carried the division of the partition higher than had yet been done, and in a few hours the patient was seized with acute peritonitis, which proved fatal. I apprehended at first that this inflammation might have been produced by the effusion of fecal matter into the abdomen; but, at a public examination of the body, no such effusion was found. The cavity contained merely a quantity of purulent serosity and albuminous flocculi, the ordinary products of acute inflammation. The communication between the two extremities of the gut was re-established for the space of about two inches. The ends, before separated, had now but one wall and one cavity; along the whole length of which, both before and behind, there was a raphe, produced by the cicatrix in the partition; and every thing announced that, had not this unfortunate accident intervened, the artificial anus would have been cured.

Chagrined at the result of this case, I again reviewed the question; and I was confirmed in my opinion, that establishing a communication between the two ends of the intestine,

by destroying the partition, was the only mode that promised any chance of success, and that the sole defect was in the means hitherto employed.

It became necessary to devise a method of keeping the parts in contact previously to dividing them, and which would not effect their division until adhesion had taken place. At length, after many trials, upon the dead body as well as upon living animals, I believe that I have discovered the instrument which I sought for. It is composed of three pieces.—two branches and a screw. Each branch is about six or seven inches in length, and one, which may be called the male, because it is received into the other, has a blade four inches long, three lines broad, and half a line thick at its edge, which is undulated and terminated by a spheroidal button. At the union of the blade with the handle is a mortise, some lines in extent; behind this mortise is a handle, one, two, or more inches long, having another mortise running nearly the whole of its length, about three or four lines broad. The female branch is not quite so long as the former: it is composed, at one of its extremities, of two blades of the same length, breadth, and thickness as the male blade: between these two blades is a sort of sheath, to receive the other blade. At one of the ends of this blade is a cavity, to receive the button of the other. At the junction of the blade with the handle there is a moving pivot, which is to be received into the mortise of the other branch; the handle is terminated by a hole to receive the screw.

The third part of the instrument is a screw of several threads, an inch and a half long, terminated by an oval plate. This screw is to be placed in the mortise of the male branch of the instrument, and fixed in the female branch: its use is to separate or close at pleasure the two blades of the instrument. This instrument I named an *Enterotome*.

The application is easily understood: two branches, which may be separated or united at pleasure, provided with blades, very blunt, and with a waving edge, are moved by means of a screw passing across the handle. Whatever these blades enclose, is retained by them by means of their form, as well as by the introduction of the one into the other. The pressure which they exercise upon the parts they embrace has the effect, at first, of placing them in contact, and it may afterwards be increased so as to destroy their vitality. This instrument has not since undergone any alteration, but has been applied to every case of artificial anus upon which it has been necessary to operate. However, before I employed it upon man, I applied it to other animals, and upon each

occasion it succeeded in dividing the parts in six or eight days. In every case where serous membrane was confined within the branches of the instrument, the parts were united by the second or third day, and consequently long before the solution of continuity, which does not happen till the seventh or eighth day.

The action of the enterotome was never attended with severe pain, and the inflammation was always confined to the immediate vicinity of the parts laid hold of. It did not produce solution of continuity like a cutting instrument,—that is, without any loss of substance: on the contrary, it caused mortification of the parts embraced by it, and a slough, which, when it separates, is always between the blades of the instrument.

The following is the first case in which the enterotome was employed:

— Menage, *ætat.* twenty-six, had suffered from his infancy from an inguinal hernia on the right side, which became strangulated on the 2d January, 1815. On the sixth day, after vain attempts at reduction, the operation was performed. The intestine was in a state of mortification, and the feces passed by the wound. An artificial anus became established.

At the end of a year he was admitted into the Hôtel Dieu. The artificial anus was about half an inch in diameter: it was surrounded by irregular tumors, arising from the puffing up of the mucous membrane of the intestine, behind which, whenever the patient made the least exertion, a hernia appeared, giving rise sometimes to the invagination of the intestine. The neighbouring skin was extremely irritated; the man suffered great pain, and the stench he emitted was excessive. My first step, after appeasing the irritation of the skin, was to determine the position of the two ends of the intestine. At length I discovered the direction of the extremities, as well as of the buttress and partition; and immediately I introduced the blades of the enterotome, separately, to the greatest possible height, into each of these ends; and, after having fastened them together, I closed them moderately. The patient experienced no pain: they were tightened on the following day, and some colicky pains ensued. In a few days the blades of the enterotome became a little moveable. About the sixth day, there were abundant evacuations by stool, and the instrument fell off on the eighth: the blades contained nothing but a membranous band, in which all the tunics of the parietes of the gut were cognizable. The length of this membrane, which was as thin and dry as parchment, was twenty lines, by two in breadth: this was the exact measure of the depth to which the instrument had been conveyed, and consequently that of the loss of substance which the partition of the intestine had undergone. From this time all the feces passed by the natural anus, and their escape by the ar-

tificial one could be prevented by pressure. Various methods were tried, without avail, to heal this up. At length, seeing the obstinacy of this opening, now little more than a line in diameter, I excised the edges, and brought them together by the twisted suture; and afterwards employed pressure. At length, after four months' labour, I had the pleasure of presenting this patient to the Faculty of Medicine, entirely cured.

In order to apply the instrument, it is necessary, first, to seek for both the orifices of the intestine, and to determine exactly their direction. This is the most difficult part of the operation. The upper orifice is, indeed, easily found; but, to discover the lower, the finger or a probe must be employed often for several successive days. These points being ascertained, and the patient placed upon his back, one of the blades of the enterotome is directed, by means of the index finger, into one of the orifices of the gut, according to the nature of the case, one, two, or three inches in depth. This blade is then given to an assistant, and the second blade is introduced, with the same precautions, and to the same depth, into the other extremity of the intestine; the two blades are then brought together, and articulated in the manner of a pair of forceps, by putting the tenon of the one into the mortise of the other. It is sufficient, at first, to take hold of the intestine, and to bring the blades of the instrument together in the same way as with a pair of scissors. The action of the enterotome being intended to be slow and gradual, it can only be kept up by mechanical means. This is done by the screw; and the pressure ought to be so managed as to destroy the life of the part from the first day: it is by so doing that the pain and inflammation are prevented. This pressure is to be increased every other day, by giving the screw a turn or two. It might appear, at first sight, that an instrument carried to such a depth into the abdomen, and pressure made to such an extent as to destroy the parietes of the intestines, would produce colic, vomiting, inflammation, and other severe accidents; but such has not been the case. Indeed, those to whom the instrument has been applied have experienced but very slight pain: a very small number have suffered from colic and vomiting; the inflammation has been confined to the portion laid hold of by the instrument, and has not been communicated to other parts. After a few days the instrument becomes a little moveable: this mobility increases daily, until it falls off without any pain or bleeding; and this happens always between the seventh and tenth days. When it has fallen out, the blades are found nearly closed, containing within them a membrane similar to that above



described. The most difficult part of the cure remains, that is, to obliterate the external opening; and many weeks are requisite to accomplish this.

The following case proves that the above plan is equally applicable to those instances of artificial anus resulting from wounds.

Louis Tubert, aged forty-two, was admitted into the Hôtel Dieu, March 1824, with an artificial anus. This man was of weak intellect and small stature, with a muddy complexion, extremely thin and feeble. Eighteen years before, he had produced a rupture at the ring of the left side, in consequence of a violent exertion. The size of the tumor increased, so that, at the end of fifteen years, it was as large as an infant's head, and was in a great measure irreducible.

Believing himself to be an object of ridicule on account of his infirmity, Tubert thought to rid himself of it by an operation. He made a large incision in his scrotum, opened the hernial sac, and exposed a knot of intestine eighteen inches long. He then became alarmed, and sent for a surgeon, who with some difficulty reduced the gut; but the hernia remained; for, considering a bandage as merely a palliative cure, he refused to wear one. He still continued to imagine that he could cure himself by an operation; and, brooding over this for about three years, at length, on the 22d February, 1824, he made another incision into the scrotum, opened the hernial sac, and, bolder than on the former occasion, he laid hold of the intestine, and cut off a piece of it. The pain, bleeding, and issue of fecal matter, however, alarmed him, and he once more sent for his surgeon, who enlarged the opening in the scrotum, discovered the two extremities of the divided gut, and reunited them by several points of suture. These failed in uniting the intestine, but they produced inflammation of its extremities, which united them to the lips of the wound, and thus an artificial anus was formed. The part removed was two inches and a half of the small intestine: it did not form a complete cylinder, but was interrupted at two parts, one for the extent of about half an inch at its extremity, and the other about the centre.

On his admission into the Hôtel Dieu, there was found, on the left side, a long tumor, extending from the ring to the bottom of the scrotum: it was hard, shining, partly reducible, and exhibited, at its lower and anterior part, a wound of a vivid red colour, formed below by the scrotum, and above by the two ends of the intestine twisted upon each other so as to make several turns. They were placed side by side: that on the right gave vent to some fluid feces, mixed with undigested matters: this was continual and involuntary. The other end of the intestine was retracted, and did not discharge any thing. The patient was in a filthy state, and suffered from colic, as well as from a fixed pain and tension in the left iliac region. After the lapse of a few days, the two reverted ends of the intestine were reduced, and a bandage

applied over the artificial anus : enemata were then administered, and a regular diet established. Pressure could not be borne: it was tried several times, but always occasioned symptoms rendering it necessary to abandon its use.

The man continuing to waste, I determined to seek for the two extremities of the gut. I found that the upper, or stomach end, was situated at the bottom of the scrotum, where it formed inextricable circumvolutions, and that the rectal end led directly to the ring. This situation of the upper end of the gut caused me to hesitate as to any attempt at a radical cure; but at length the urgent entreaties of the patient, who had heard that similar infirmities had been cured, induced me to make the attempt, especially as I dreaded his making an attempt at a third operation himself.

I accordingly proceeded on the 31st May, in presence of MM. LARREY, AUMONT, and SANSON, to introduce the blades of the instrument separately into each extremity of the gut, passing them in as deeply as possible. The upper blade could only be carried to the depth of from two and a half to three inches, and in this situation I was obliged to fix the instrument. On the first day there was no pain; the next day there was an œdematous swelling and some redness at the edge of the artificial anus, but still there was no pain. On the sixth and seventh days, slight colic was felt; the eighth day, the instrument fell off, and the two extremities of the intestine formed one canal. From this time clysters were administered every day; flatus passed per anum, but the feces still made their way by the artificial anus, and therefore the patient continued still to become thinner and weaker.

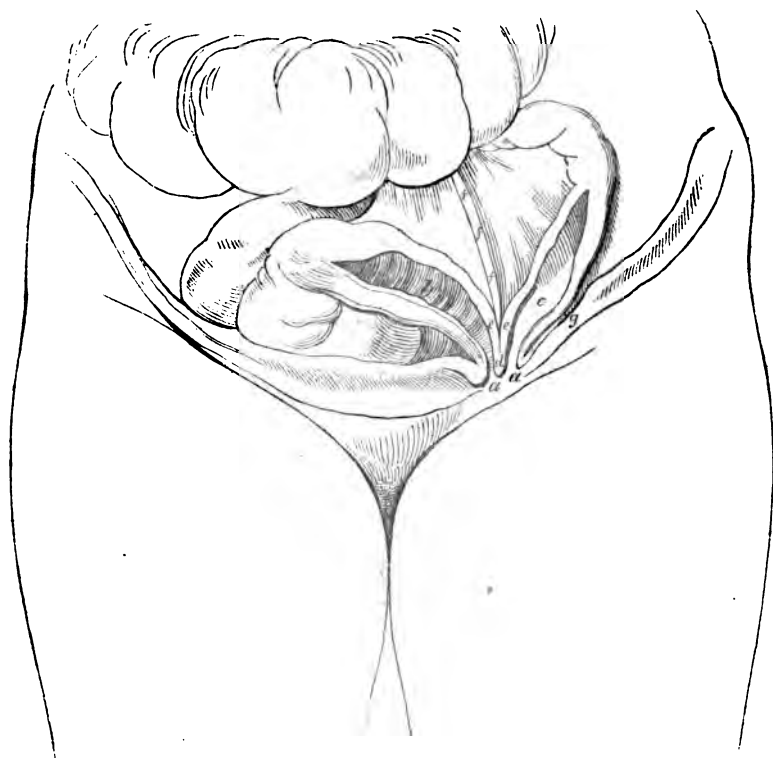
After the lapse of a fortnight, Tubert conceived that he had passed feces by the natural anus, and the volume of the tumor diminished. Some time after this, pains in the belly began to be felt: their violence at first threatened to exhaust the patient's remaining strength. However, the evacuations became established in the proper channel; they acquired regularity; and strength was in some measure restored. The size of the tumor gradually decreased, but still some fecal matter passed by the artificial anus. To arrest this entirely, I applied an apparatus for the purpose of holding the lips of the wound in contact. This compressor was composed of two segments of a circle, of equal size, a few inches long, and some lines only in breadth, placed parallel to each other, each surmounted by a shank of an inch and a half high: these shanks were united by a crosspiece fixed to one, and moveable upon the other, which received it in a groove with which it was pierced. Beneath this crosspiece was a screw, which rested upon one of the shanks and moved upon the other; and the movements of which to the right and left produced, as required, either the separation or approximation of the compressing arches. These being padded, were separated; the skin in the vicinity of the artificial anus was raised up, and the fold which it formed was insinuated between the arches; a slight motion given to the screw

from right to left brought these segments of the circle together, and thus the artificial anus became so compressed that nothing could pass through it. When this compressor was applied to Tubert, it happened as I expected: nearly all the fecal matter took its natural course; the little that still continued to ooze out was suppressed by an increased adaptation of the instrument; and then, for the first time, a smile was seen upon the patient's countenance. The instrument, however, sometimes got loose, and at others produced excoriation of the parts, and then the feces began again to flow from the wound; and, as this occurred several times, gentle and constant pressure with a bandage was substituted.

From the period that the excrement passed by the natural channel, the patient rapidly recovered his flesh and strength, so that his appearance was sufficient to shew whether there had been any discharge from the artificial anus or not. A triangular flap of skin, situated at the upper part of the artificial anus, resulting from the irregular cut made by the patient, seemed well adapted to close what remained of the aperture: this flap, as well as the edges of the opening, was therefore touched with lunar caustic; and it was then applied and maintained in this position by the assistance of a bandage. The flap united, and completely closed the opening; thus perfecting the cure in rather less than five months.

I could multiply the examples of cure by the method above related, but the detail of a number of cases would add nothing to what I have already said: it will be more useful to give the general result of these operations. The result, then, of the facts collected in my own practice, as well as of those communicated to me, or published by different medical men, is that forty-one operations for artificial anus have been performed by means of the enterotome; viz. twenty-one by myself, and twenty by other practitioners, among whom is M. LALLEMANT, professor at Montpellier. Three-fourths of these operations were rendered necessary in consequence of gangrene from strangulated hernia; the other fourth in consequence of wounds, with loss of substance. Of these forty-one operations, three only have been fatal: one from a presumed effusion into the abdomen, one from indigestion, and one from peritonitis. Of the thirty-eight remaining patients, by far the greater number experienced no serious symptoms: some few were affected with nausea, vomiting, or pains in the belly, but these were remedied by simple means. The whole number were not equally well cured. Nine had, in spite of every thing that could be done, fistulous openings, which have obliged them to wear a bandage. Twenty-nine have been radically cured. Thus, the operation has caused death only in one case out of fourteen; and if the death by indigestion, which ought not reasonably to be attributed to the operation, be excluded, the proportion is reduced to one in twenty.

*This Cut explains the Anatomy of the Artificial Anus.*



**a.** Opening of the artificial anus, where the mucus membrane and skin meet.

**b.** The upper portion of the intestine.

**c.** The lower end of ditto.

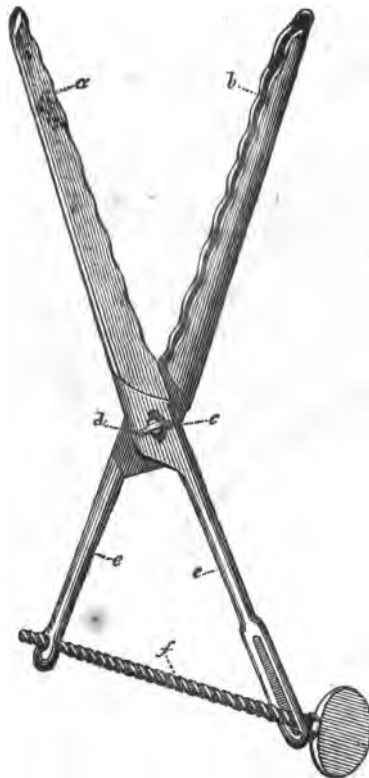
**d.** The projection or buttress.

**e, e.** Coats of the intestine forming the double partition.

**f.** The ligament formed by the mesentery.

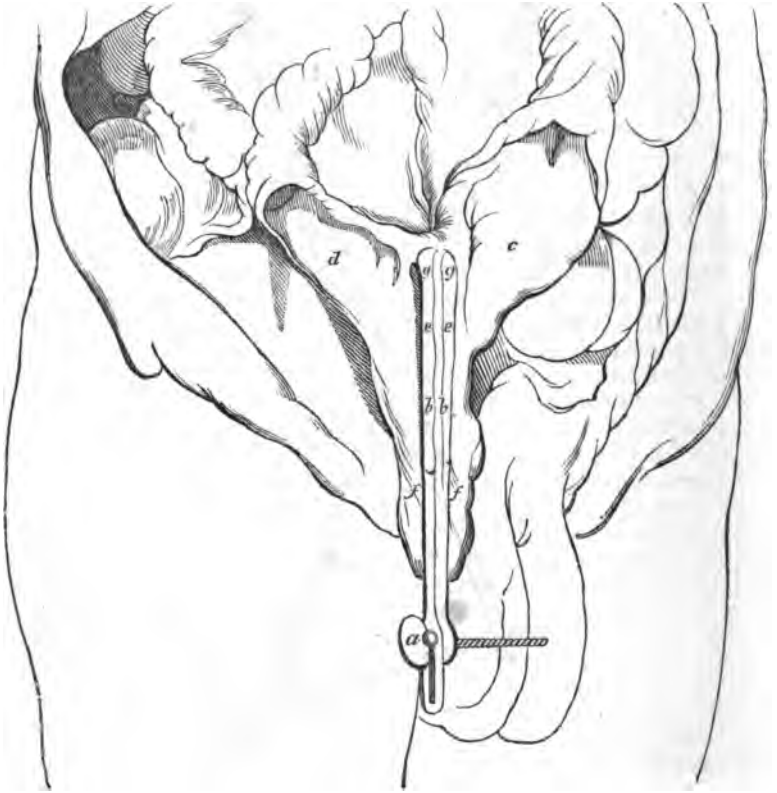
**g.** The infundibulum between the peritoneum covering the intestine and that lining the abdominal cavity; where herniæ are apt to form.

*This Cut represents the Enterotome.*



- a.* The male blade.
- b.* Female ditto.
- c.* The joint.
- d.* The moveable pivot.
- e.* The handles.
- f.* The screw by which the blades are made to approximate.

*This Cut represents the Enterotome applied.*



- a.* The screw turned as far as it will go.  
*b, c.* The blades of the instrument closed upon the partition.  
*g.* The extremity of the blades.  
*d* and *c.* The ends of the bowel.

## HOSPITAL REPORTS,

*(Principally condensed from various Periodical Publications.)*

## GANGRENE.

CASE I. *Gangrene of the Thigh, with the Question of Amputation.*

By GEORGE BALLINGALL, M.D. (at the ROYAL INFIRMARY of EDINBURGH.)

IN the case of Alexander Moffat, aged seventeen, who was admitted on the 20th of May, you had an instance of a severe lacerated wound of the thigh running rapidly into gangrene, and terminating in the death of the patient. This lad's wound is described as follows:

There is a contused wound extending from the centre of the popliteal space outwards across the knee to the fibular edge of the left patella; from near the middle of this wound there is another, which runs obliquely upwards towards the inner part of the thigh for the distance of three inches; the integuments and fascia are separated from each other all around the knee, and in many parts the latter membrane is lacerated. Two wounds of a similar character, but of trifling extent, are situated, the one in front of and a little below the inner malleolus, the other behind the tendo Achillis of the right foot. The injury was the consequence of the broad wheel of a cart pressing against his thigh for some minutes, the cart being loaded with five cwt. of marble.

On the morning of the 21st, the wound was observed to be gangrenous, and before the usual hour of visit this gangrene had spread extensively round the knee and down the forepart of the leg. Free incisions were made through the black and insensible skin, which gave vent to large quantities of fetid air and dark-coloured sanies. The propriety of amputating the limb was now considered in a full consultation, and was declined in consequence of the advanced state of the disease; the lower part of the thigh being decidedly gangrenous, and the remainder of it so far involved as to be discoloured, swollen, tender, and emphysematous. The wounds on the other leg had also assumed a gangrenous disposition; the patient was affected with subsultus tendinum, his pulse at 120 and fluttering, his tongue furred and dry, his skin hot, and thirst urgent. Hot turpentine was poured into the incisions, and the effervescing poultice applied. Opium and wine were administered internally, but without any thing like even a temporary suspension of the symptoms. He soon became delirious, and expired on the evening of the 23d.

The question which fell to be discussed in the consideration of this boy's case, the propriety of amputating during a spreading gangrene, is one which has of late occupied much of the attention of practical surgeons, and one regarding

which their sentiments have recently undergone an important change. The precept of not amputating during the progress of gangrene was much too absolute to be good; and we are chiefly indebted to the military and naval surgeons of the present day for having shewn that this dogma does not admit of that indiscriminate application which was at one time given to it. In the writings of LARREY, LAWRENCE, HENNEN, GUTHRIE, HUTCHISON, and CURTIS, you will find ample encouragement and authority to deviate from what was long held to be one of the best-established rules of our art. The first of these distinguished surgeons has, by his practice and by his writings, contributed more than any other individual to establish a well-founded and practical distinction in the treatment of gangrene arising from a local, and that from a general, cause; and the last-mentioned gentleman, a naval surgeon, is particularly entitled to notice amongst those who claim the merit of priority in recommending the practice of amputating in cases of traumatic gangrene, without waiting for a line of separation; for, although his work was not published until 1807, it refers chiefly to practice instituted in the naval hospital at Madras, so far back as 1782.

Amongst other sources of information on this important point, you will find a very recent instance of the successful issue of a case in which amputation was performed during a spreading gangrene, recorded in the *Edinburgh Medical and Surgical Journal*, by Mr. M'DERMOTT, of the 4th (or King's own) Regiment, now in the castle here.

Although, for the reasons formerly stated, I declined this operation in Moffat's case, and although the only case in which I have ever operated in such circumstances terminated fatally, yet I should be sorry to have it thought that I am in any degree hostile to the practice. I think it right to observe, that, in declining an operation in the case now under review, I was in no degree influenced by the unfavorable issue of another case, which I shall immediately proceed to detail. You will recollect that at the time the amputation of Moffat's limb was under consideration, the case I allude to afforded a prospect of a favorable result. In declining the removal of this boy's limb, I was actuated by a conscientious conviction (right or wrong) of its inutility; by a firm persuasion that the performance of an operation in a case so hopeless would have been more likely to bring a promising practice into disrepute, than to have saved the life of my patient.



CASE II. *Gangrene of the Leg.—Amputation.*

In the case of Robert Brockie, a patient of Mr. LISTON'S, you had an opportunity of seeing the limb amputated during a spreading gangrene, and, although in this instance without success, yet I do not think that, upon a fair and full consideration of the case, it can be held to argue much against a repetition of the practice. It affords another instance of those internal depositions of purulent matter succeeding to injuries or operations which have been noticed by Mr. ROSE, in the last volume of the *Medico-Chirurgical Transactions of London*, and of which I have seen several examples. As this was a case which bears upon a great practical question, and one which very naturally and properly excited much of your attention, I am induced to give it in detail from the journals of the house.

“ Robert Brockie, aged about forty, admitted 3d May, 1828; was brought in about ten P.M., having fallen from a house four stories high in Dalkeith. There is a fracture of the tibia and fibula, about an inch and a half above the ankle-joint; the lower portion of bone appears to be driven under the other. There is likewise a fracture of the second phalanx of his thumb. The limb was placed on the suspending apparatus.

8th.—The bandages round ankle-joint were yesterday removed, in consequence of pain and swelling of limb. Had some wandering, accompanied with pain of head and full pulse. Was bled to 3xx.; blood cupped and buffed. Passed a quiet night; skin surrounding the fracture of a dusky red colour, and some vesications on fore part; pulse eighty-four, full; tongue loaded; no stool; free from pain of head.

R. Tart. Potass. et Sodæ ʒss.; Supertart. Potass. ʒss.; Tart. Antimon. gr. ij.; Aquæ ʒxvj. M. capiat ʒj. tertia quaque hora.

9th.—Several large black vesications over the inner malleolus. The whole of the inside of the leg is of a dusky red colour; it is extending in a streak upwards along the inner side of the thigh; toes very cold, but is sensible when they are touched; had a good deal of starting in limb; slept badly; three natural stools; tongue moist; some thirst; skin rather hot; pulse eighty-eight, full.

A bandage applied from the toes up the thigh.—*Lotio evaporat. crur.*

10th.—Passed a restless night, undoing the bandages from his leg; dusky appearance has extended more towards inside of leg, and somewhat higher up the thigh; some vesications appearing on forepart of leg; no pain of head, but had some delirium last night; tongue moist; four loose stools; pulse seventy-two, full; skin cool; takes his food; foot continues cold, but feeling remains in it.

Infus. Catechu Thebai. ʒss. subinde.—Habeat haust. h. s. c. Tinct. Opii gutt. c.

11th.—Has been sleeping soundly since one this morning; complains of no pain. Tongue much loaded; one stool; is perspiring freely; pulse 112; dusky appearance of leg much the same. It does not appear to have spread much on the thigh. The forepart of foot and toes are cold and very livid. Has taken no food this morning.

R. Camphor. ʒss.; Emulsion. Amygdal. ʒvj. M. Habeat ʒj. secund. quaque hora.—Beef-tea ad lib.

12th.—Lies in a drowsy state, but frequently starts up in his bed. The dusky appearance on inside of thigh has entirely disappeared; the forepart of foot is more livid and cold; he does not appear to have any feeling in his toes; the discharge from ankle has a most offensive smell. No stool since yesterday; tongue loaded, much thirst; his breathing appears rather laborious; delirious at times; no pain of head; pulse 100, of good strength; skin hot. Mr. Liston removed the limb above the knee by the flap operation: there was some hemorrhage after removal to bed, in consequence of which the stump was undone, and several vessels secured. The bones were found much comminuted, the fracture extending into the ankle-joint. The cartilages were of a red appearance. There was matter of a very putrid nature running a considerable way up the calf of the leg.

13th.—Slept well; some starting of stump; has had troublesome cough this morning; breathing quite natural; pulse eighty-eight, of good strength; tongue loaded. No stool.

Beef-tea.—Contin. Mist. Camphor.

14th.—Slept well; no pain in stump; complains of pain in breast, accompanied with troublesome cough; no pain of breast on full inspiration; one scanty stool from an injection; tongue moist, but white; perspires much; pulse eighty-two; skin rather cold.

Omit. Mist. Camphor.—R. Tinct. Digital. ʒss.; Tinct. Gentian. ʒjss. M. Capiat coc. parv. quarta quaque hora.

15th.—Slept well. Had some vomiting of bilious matter this morning; bowels not open. Had a turpentine enema, which procured one copious stool. Frequent cough; perspires much; skin cold and clammy; his whole body has a peculiar disagreeable odour; pulse fifty-five; tongue moist.

Omit. Tinct. Digital.—Habeat Spirit. Commun. ʒj. secunda quaque hora.

16th.—Slept well, but was restless during fore part of night; had some diarrhoea, on which an anodyne enema was ordered, since which he has had no stool. Takes little food; some cough; pulse fifty; skin cold and clammy; tongue clean; hiccup at times, but no vomiting. Much discharge of fetid matter from stump.

17th.—Passed rather a restless night. Has much less cough; considerable discharge from stump, which looks more healthy;

pulse eighty; tongue moist and clean; less thirst; had some delirium during the night.

Habeat Tr. Opii, Camphor.  $\text{zij}$ . quarta quaque hora.

18th.—Passed rather a restless night. Has had at times a good deal of hiccup, but no vomiting; tongue a little loaded, but moist. One natural stool last night. Delirious during fore part of night; still a little cough; much discharge from stump of healthy looking matter; pulse seventy-two. Took some breakfast.

19th.—Had a sinapism applied to the epigastrium last night; was very restless; hiccup continues frequent. Two natural stools. Has little cough, but breathing is laborious; is perspiring much; pulse seventy-four, full; some subsultus; much discharge from stump.

R. Spirit. Ammon. Arom.  $\text{zij}$ . tertia quaque hora. Rum  $\text{℥xij}$ .

20th.—Lies in a drowsy state; no delirium. Two natural stools since yesterday. Much sweating during night; stump continues discharging; pulse ninety; no hiccup. Took some breakfast.

R. Emulsion. Amygdal.  $\text{℥vj}$ .; Camphor. gr. xxx. capiat  $\text{℥j}$ . tertia quaque hora.

21st.—Passed a quiet night; hiccup returned this morning. Eat two eggs for breakfast. No stool; much sweating during night; pulse 100; much discharge from stump; countenance much improved.

22d.—Continues the same.

Two eggs for breakfast. Beef  $\text{℥vj}$ . daily.

23d.—Complains of pain in breast, increased on full inspiration. Frequent cough, with much tenacious expectoration; slept well; one natural stool; tongue loaded; pulse ninety-six; less discharge from stump. In the space of two hours, a sudden change took place: his breathing became laborious, and at the visit he appeared rapidly sinking. He, however, rallied in the afternoon; but his breathing became again affected, and he sunk again the next morning.

25th.—On examination of body, the fourth rib was fractured about an inch from the cartilage; a small quantity of pus was found exterior to the pleura costalis; old adhesions on both sides to a great extent. The left lung was full of white tubercular bodies; several abscess in the liver; four ounces of bloody serum in pericardium. A long coagulum was found in the femoral artery.

Here, gentlemen, was a case in many circumstances the reverse of the former. The patient was more advanced in life, and evidently of a much less irritable habit; the gangrene supervened later, and was of a much less acute form: here it was situated in the extreme part of the limb, and the thigh free from swelling, tenderness, or emphysema: this, in short, was deemed by every one a fit case for experiment in a question which is perhaps still to be considered in some measure *sub judice*. One symptom, however, appeared early in this

patient's case, which I did not fail to remark to my colleagues, and which, as far as my observation goes, is a circumstance almost uniformly foreboding a fatal termination: I allude to a peculiar yellow hue of the skin, which not unfrequently attends the symptomatic fever supervening upon wounds and operations. This has perhaps struck me more forcibly from being familiar with a similar appearance in the idiopathic fevers of tropical climates; and, although I have no wish to alarm the citizens of Edinburgh by talking of a yellow fever in this part of the world, yet I am bound to state, for your instruction, that I have occasionally seen it here as well marked as I ever saw it at Seringapatam or Batavia; and, when supervening upon injuries, much more uniformly fatal.

A case of this kind occurred some years ago, which made a deep impression on my mind, and which must have done so, I think, upon all those who had occasion to witness it: I allude to that of a seaman belonging to one of his Majesty's ships in the roads, whose limb had been amputated below the knee in consequence of an accident. The accommodation on board his ship being defective, and the vessel about to sail, he was brought ashore to this hospital, and placed under my care. Here his stump sloughed; the symptomatic fever ran high, was attended with that dingy yellowness of the skin to which I allude, and in a few days he died. I observed to the surgeon of the ship, who came ashore to see him dissected, that this case wanted nothing but the "black vomit" to constitute a complete example of yellow fever; and it was found, on laying open the stomach, that this circumstance, necessary to complete the parallel, was hardly wanting; for here was a large collection of that dark grumous fluid, resembling coffee grounds, which is so often evacuated from the stomach in tropical fevers.\*

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#### MISCELLANEOUS CASES.

*A Case of Rupture of the Bladder, with Separation of the Symphysis Pubis. Death sixty hours after the occurrence of the accident.*

DAVID HILL, æt. thirty-five, horse breaker, a stout, powerful man, was brought to the WORCESTER INFIRMARY, on the 5th of June, in the evening, having met with an accident, from a colt rearing up and falling upon him, about three hours before. His face was pallid and distressed; pulse very feeble. He complained of great pain about the left hip, particularly on motion. He had not passed any urine since the accident, or for three hours before.

\* From Dr. BALLINGALL's Clinical Lecture, July 1828.

The person who brought him said that, at the time of the accident, he was intoxicated.

A gum catheter was passed, and left in the bladder: about a pint of bloody urine was drawn off.—He was ordered half an ounce of brandy every two hours.

June 6th.—The pulse had got up. There was very extensive ecchymosis over the pubes, and both groins; great tenderness and tension over the abdomen; no stool; vomiting very frequent.

Appl<sup>r</sup> Hirud. xxx. abdom.—R. Hyd. Submur. gr. x.; Pulv. Jalap. gr. x. fiat bol. j. stat. sum.—Mist. Cath. quartis horis.—Adhib. Enema vespere.

7th.—Vomiting continues of dark-coloured matter; pulse hardly perceptible; intellect clear; no stool; urine flows through the catheter. Tension and tenderness of the abdomen increased.

8th.—Died this morning.

*Sectio cadaveris.*—Integuments, and the whole of the abdomen below the umbilicus, much contused. The symphysis pubis was separated throughout its whole extent, so as to allow the thumb to be introduced between the bones. The bladder was ruptured transversely through the fundus and peritoneum covering it, to the extent of about four inches. A small quantity of urine, mixed with pus, was discovered in the pelvis. The intestines shewed patches of inflammation here and there; and about three inches of the intestinum ilium was quite black, from ecchymosis between its coats.

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*Case of Wounded Liver from a Gun-shot Wound. Death in seventeen hours.*

JAMES BANKS, a stout young man, about sixteen years of age, was brought to the Worcester Infirmary, on the 5th of November, about six o'clock in the evening. He had been firing off an old cannon or pistol barrel, charged with a quantity of powder and gravel, which burst, and struck him down. There was a small wound, just large enough to admit the little finger, over the cartilages of the false ribs on the right side, about three inches from the ensiform cartilage. His face was extremely pallid; pulse small and fluttering; breathing very laborious. Blood flowed in considerable quantity from the wound, dark in colour, and thin, as if diluted with other liquid. He gradually sunk, and died about eleven o'clock the next morning.

*Sectio cadaveris.*—The cartilages of the false ribs, under the wound, were much shattered; a wound, about an inch in length, was discovered in the liver, close to the ligamentum suspensorium, passing through its substance, and coming out on the left side of the gallbladder; the first portion of the duodenum, close to the pylorus, was laid open to some extent. The pancreas was also wounded; and a piece of iron, about two inches in length, and an inch in breadth, much bent, with jagged edges, was found lodged in its substance. The right hepatic artery was wounded,

also the hepatic vein: this latter vessel, from the appearance of the blood, chiefly furnished the hemorrhage. A good deal of coagulated blood, mixed with the contents of the duodenum, was found in the cavity of the abdomen.

*Misplaced Colon, with Enteritis.*

OCTOBER, 1823.—ANN B. had been, two years before, a patient in the Infirmary, under my care, with a fixed tumor in the right iliac region, painful and tender. The bowels were then costive, the abdomen tense, the tongue foul, the pulse rapid and weak, and the emaciation great. She was ordered a seton over the situation of the tumor, occasional doses of oleum ricini, and low diet. Under this treatment the tumor nearly disappeared, the other symptoms yielded; and she gradually regained flesh and strength.

After a violent fit of anger, in which she used great muscular exertion, she was suddenly seized with fixed and violent pain in the bowels, of true inflammatory character. The bowels were at first loose, but afterwards obstinately bound, with vomiting of bilious matter. The seat of the old disease was the most tender part of the abdomen.

She was bled generally and locally, largely and repeatedly. In seventy-two hours from the seizure, the abdomen became tympanitic, the pulse too rapid to be counted, and she soon afterwards expired.

*Sectio cadaveris*, thirty-six hours after death.—The omentum, at its lower edge, was highly inflamed, and adherent, in the right iliac region, to the peritoneal lining of the abdominal muscles, and to the subjacent intestines. A portion of it was sphacelated. The portion of intestine with which it was chiefly connected proved to be the centre of the transverse arch of the colon, misplaced, and having its peritoneal coat thickened nearly to a quarter of an inch, over a space as large as three half-crowns: for the colon, instead of passing across the epigastric region, descended from the right hypochondriac region to the right iliac, and then ascended again to the left hypochondriac region, whence it pursued its usual course.

The diseased portion of the colon had part of its peritoneal coat in a state of sphacelus; but the villous coat was healthy at this part, and throughout the whole tract of the intestines. The diseased part of the colon was adherent to the cæcum below, but the cæcum was free from disease. There was a soft albuminous deposit on the folds of the intestines, and on the under surface of the omentum; there was also about a pint of serum in the cavity of the peritoneum.

*Remarks.*—The diseased portion of the intestine, which evidently constituted the original tumor, was, from its situation, considered, by all who saw her when she was in the Infirmary, to be the cæcum. The fact of the displacement of

the transverse arch could not be ascertained during the lifetime of the patient. This case shews how rapid and severe is acute inflammatory action, when it takes place in a morbidly altered structure, in which perhaps chronic inflammation is going on. It shews, too, that those violent passions of the mind, which augment generally the force and rapidity of arterial action, are powerful exciting causes of local inflammation.

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*Hydrocephalus Acutus.*

In a child, aged six years, who died with all the symptoms of this disease, I found more than two ounces of fluid beneath the tunica arachnoidea, but not any in the ventricles of the brain. The brain was highly vascular, and very hard.

In this case, in the early part of the first stage, vomiting was produced by sudden noises, as a clock striking. This I witnessed more than once.

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*Case of Tumor in the Uterus.*

In August, 1813, Susan Turberville, fifty-three years of age, was made an in-patient of Worcester Infirmary, with an ulcer in the left leg, which had existed for five months. In addition to this there had been, for some years, great enlargement of the abdomen. It was as prominent as in the sixth month of pregnancy. The enlargement was general over the lower part of the abdomen, not greater on one side than the other, extending from the pubes nearly up to the umbilicus. She was generally in pain about these parts, and in the groins; there was likewise tenderness on pressure. The appetite was good, but she was troubled with wind on the stomach. The bowels were always costive. She had frequent micturition, and always pain in evacuating the bladder. She was quite incapable of any active employment, but able to gain her livelihood by knitting, though she could not sit long in one place, being easier for gentle exercise. The breath was always short, but there was no cough. She had never borne children. The catamenia flowed till the usual period. The leg was cured by the latter end of December, and she went away from the infirmary, much in the same state as when admitted with respect to her visceral disease.

The leg continued well for about a twelvemonth, but the disease in the abdomen kept gradually and slowly increasing.

On the 16th of September, 1815, she was again admitted into the infirmary, on account of a small ulcer on the inner ankle of the right leg. The visceral disease had evidently gained much ground. The pulse was now always hard, and quicker than natural; the pain at the lower part of the abdomen was much greater; there was more tenderness on pressure, and the belly was increased in size; and the breath was much shorter. There

was also a constant, profuse, thick, white discharge per vaginam. The bowels were more costive, and micturition was more painful. The stomach was much oppressed with flatus, but the appetite still continued good.

On the 16th of October, she had the following pills directed for her:

R. Ferri Sulphatis, gr. iij.; Gummi Olibani, gr. x.; Cons. q. s. fiat pilulæ ij. bis die sumendæ.

The intention with which these pills were given was to check the discharge, and give tone to the stomach. At the end of a week from taking the pills, the discharge was much lessened, but in other respects she felt much as before. By the 20th of October, the discharge had almost ceased; but she was, in other respects, the same as when admitted into the infirmary.

On the 28th, she complained of being worse, having rather more pain over the abdomen, and great pain in the head. At night she was incoherent, wandering from one subject to another. The bowels had not been moved for two days. Some calomel and antimonial powder were taken at night, and a blister was applied to the nape of the neck. The night, was restless; but the bowels were moved very freely on the morning of the 29th.

On the 30th, she began to complain of great increase of pain in the abdomen, with tension and much tenderness on pressure. No vomiting; pulse hard, small and wiry. It was found, on inquiry, she had an umbilical hernia; but, on examination, it did not appear strangulated. Ten leeches were applied to the abdomen, by which she appeared slightly relieved, but shortly after the tension, pain, and tenderness returned. The countenance now became ghastly, and the eyes sunk; she had constant tenesmus. A large blister was applied to the abdomen, and she had an opiate enema. At about ten o'clock that night she vomited for the first time, which recurred several times in the night. There was no relief from the blister, and all the direful train of symptoms which usually characterise the last stage of peritoneal inflammation now shewed themselves.

She died at three o'clock of the morning of the 31st.

*Examination of the body*, twenty-four hours after death.—On opening the abdomen, purulent matter was observed covering all the intestines. The uterus appeared to occupy the same space in the abdomen that it does in the seventh month of pregnancy: it was firmly and closely connected anteriorly with the peritoneal lining of the abdominal muscles. At the posterior part, it was connected with the peritoneal covering of the bowels, and, as in the healthy state, with the sides of the pelvis, by the ligamenta lata, as also to the pudendum, by the ligamenta rotunda. On cutting it from its connexions with the above-mentioned parts, and elevating it, a process was found descending from the lower and posterior part of this large uterus into the cavity of the pelvis, passing between the rectum and the os sacrum, and separating the former from the latter. The vagina and the urethra were na-



turally situated. The whole surface of the tumor was very much inflamed, and covered with pus. The peritoneal lining of the abdominal muscles was in the same state. The colon was larger than natural, but not distended with fecal matter. The cæcum was large. The rectum not larger than natural. The small intestines of their usual size.

The peritoneal covering of the stomach was much inflamed; its upper surface adhering, by recent lymph, to the under surface of the left lobe of the liver. The liver was twice its natural size; its peritoneal coat inflamed, recent lymph being deposited on it. In addition to this, it was firmly and closely united, by old adhesion, to the diaphragm. The spleen enlarged, and very soft in its structure; its peritoneal coat had become cartilaginous in some places. Pancreas healthy. Kidneys healthy. Urinary bladder full of small calculi. Thoracic viscera healthy.

There was nothing but omentum contained in the hernial sac at the umbilicus, and it was not strangulated. On macerating the diseased parts, it was found that a tumor had grown within the uterus, much resembling the muscular structure of that organ. The uterus could with ease be separated from the tumor, being connected with it by common cellular substance.

The uterus and tumor together weighed 14lb. 8½oz.

*Observations.*—It is remarkable in this case that two very important organs, the uterus and the liver, were very considerably diseased, and yet this woman, until within a very short period of her death, appeared to suffer but little in her general health: there was, indeed, no other symptom of constitutional disturbance, but a difficulty in passing the urine and constipation.

Dr. BAILLIE seems to regard growths of this description in the uterus as tubercles: he says, "A mass of the same kind is sometimes found in the cavity of the uterus, and often grows to a very large size: I have seen it a good deal larger than a child's head at birth. This mass, when cut into, exhibits precisely the same appearances as those which we have so lately described. It is remarkable that such masses within the cavity of the uterus commonly do not adhere in any part closely to it, but are connected with it loosely, by the intervention of cellular membrane and small blood-vessels, so that they can be very easily peeled off without injuring the structure of the uterus."—"These tubercles," he says in another place, "have a structure much resembling that of the uterus itself."

The size of the tumor, in the case above related, is greater than any one alluded to in Baillie's works, as he mentions one the size of a child's head at birth as the largest he had seen, which falls far short of the one here detailed.\*

\* The Midland Medical and Surgical Reporter, No. 1.

## ARTIFICIAL ANUS.

*Case of Artificial Anus, treated at the GLASGOW INFIRMARY, by*  
Dr. ANDERSON.

MARY STEWART, admitted 10th November. In the left groin, there was a very large sore, extending from the spine of the ilium to the symphysis pubis. It was about three inches broad, passing above Poupart's ligament, of a ragged, irregular, and sloughy appearance, and having a sinus running by the side of the labium down towards the perineum, from which much matter could be pressed. In the centre of the sore, there was a round firm substance, formed by a portion of prolapsed gut; and immediately above this an opening, through which all the feces passed. The parts were seen moving from the pulsations of the femoral artery. Health much impaired, hectic, and the body emaciated to an extreme degree; pulse quick, and so very feeble as not to be reckoned; feet cold. Had been subject to femoral hernia for twelve months: a month before admission, it appears to have been strangulated, and after eight days it sloughed, since which all the feces had passed through the wound.

This case was very unpromising, and, from the excessive debility, it seemed almost hopeless. A nourishing diet, with a liberal allowance of wine and brandy, produced little improvement. The appearance of the discharges soon showed that her debility chiefly arose from inanition, owing to the artificial opening having taken place in a part of the gut where the process of assimilation was still incomplete. With the double purpose, therefore, of affording nourishment, and dilating the lower intestines, I directed the use of large beef-tea enemata three times a day.

The next object was to prevent the escape of the contents of the gut, which not only kept up the debility, but produced sloughing of the sore, and hindered it from healing. The aperture admitted the finger, by which it was ascertained that only one side of the gut had been destroyed, and that the other side formed a continuous surface towards the abdomen. This case, therefore, did not require the application of the ingenious instrument of Baron DUPUYTREN. Plugging the opening with various conical shaped sponges was first tried; but she could not bear the degree of pressure necessary to retain them *in situ*. Recourse was therefore had to a long cylindrical tent of lint firmly rolled up. This was pushed deeply into the gut, so as completely to fill the external aperture, and in this way nearly to maintain itself in position. Over this graduated compresses were placed, and the whole supported by a light truss. She could not wear any kind of truss, however, more than a few hours at a time, and firm bandaging was substituted for it.

The day after the commencement of this plan, flatus was discharged by the rectum, and this was succeeded by regular and natural evacuations, which continued throughout the treatment.

Her improvement in health was now rapid, and by the end of December the sore had contracted to the size of a shilling, under the application of the chloride of lime lotion, and nitrate of silver in substance.

Still the tent could not be steadily retained without resting its extremity on the posterior surface of the gut, which more or less obstructed the passage, and forced some of the fluid feces outwards by the wound, thus hindering the cicatrization of the sore. An attempt was therefore made to construct an instrument, which might at once fill the external opening, and, by a spring or elastic loop pushed through it, should distend the circle of the gut, and allow the feces to pass onwards to the rectum. This attempt, however, failed, owing to the difficulty of obtaining a substance of proper elasticity; and, on the 16th January, the opening was freely touched with the actual cautery. All discharge ceased for several days, and, after the sloughs separated, considerable contraction took place. The cautery was freely and frequently repeated from time to time during her stay in the house, until the aperture had diminished to a very small point. The discharge was now only occasional, and so trifling as to give little inconvenience. Her health and strength were perfectly restored; and, as she was desirous to go home, I dismissed her, at the end of April, without any further attempt at a complete closure of this minute fistula, which, I believe, becomes the more difficult to be effected the smaller it is.

The actual cautery is very serviceable in many cases. I have cured several fistulæ of the urethra in this way, which had resisted every other means; and I lately saw a patient from whom I removed a very large fungus of the antrum five years ago. Her disease has not returned, solely, I am convinced, owing to the free application of the hot iron. In hemorrhagic oozings from sores or wounds, by which debilitated patients are frequently cut off, the eschar formed in this way is very effectual; and in obstinate bleeding from leech bites, especially in restless children, where pressure is difficult, the point of a red hot wire will at once check the discharge.

The objection to this remedy on account of pain, when compared to other caustics, has been greatly exaggerated, and is by no means verified by the evidence of the patients themselves. The pain is no doubt very acute, but it is transient, and I have never known any of the protracted suffering or subsequent inflammation, which are so frequently seen after the more common caustics. It changes the character of obstinate sores, whether irritable or indolent, and excites in them a new, and generally a healing action. Of this there cannot be a better example than the *Onychia Maligna*, in almost every stage of which it may be said to be quite a specific.\*

\* Glasgow Medical Journal.

protruded forward into the canal by the parts immediately beneath it having become enlarged and indurated from deposition of lymph, without the membrane itself having participated in the change of structure. In this description of stricture, the contraction entirely encircles the urethra; but there is another variety, where it exists only on one side of the passage; and thus a duplicature of membrane, with a hardened base, juts forward into the canal. This sort of stricture exactly resembles the one that encircles the urethra, excepting that it occupies a portion, instead of the whole circumference of the passage; and it seems to correspond with what M. DUCAMP and the French surgeons term a 'bride.\*' Brides in the urethra, according to M. Ducamp, are usually supported by a large base, vascular, and jutting out in the canal, evidently formed by the mucous membrane, thickened from repeated inflammations. This description seems to answer to those contractions which take place on the side of the canal; and it appears to me that they are formed in the same manner as the circular stricture; but the parts around become enlarged, and the membrane is pushed, as it were, before it.

"The contractions, which occupy a considerable extent of the urethra, are generally extremely irregular; and their structure approaches to that of cartilage, being indurated and tough. In these cases, which are usually of long standing, the membrane likewise partakes of the change: it is firmer and thicker than natural; and should the diseased part be so situated that it can be pressed between the fingers, it feels as if a piece of whipcord or catgut were placed in the urethra, perfectly unyielding to the pressure. The passage, at the thickened portion, is so much obstructed, that it will scarcely admit through it the slenderest bougie. The urine can only be filtrated through it in so small a quantity, that it flows from the penis drop by drop, or in a stream not larger than a hair; and the canal at the part is so unequally thickened that it is rendered tortuous." (P. 9.)

After having adverted to the various opinions that have been entertained as to the manner in which a permanent stricture is formed, Mr. Stafford states his own view of the subject.

"It appears to me that permanent contractions of the urethra are produced in the same manner as permanent contractions of other mucous canals, the œsophagus, the intestines, &c. (with the exception of scirrhus contractions;) that a continued chronic inflammation having existed for a considerable time in the part, its vessels are enlarged, and lymph is very gradually deposited in its interstitial structure. This slowly becomes organised and con-

\* "Elles sont parfois supportées par une base large, vasculaire, saillante dans l'intérieur du canal, évidemment formée par la membrane muqueuse, épaissée par des inflammations répétées."—DUCAMP, *Traité des Retentions d'Urine*, p. 13.

densed; and by its increase the canal, in progress of time, is entirely blocked up. The membrane, therefore, and the part immediately surrounding it, are rendered more and more indurated, in proportion to the length of its continuance, till it even assumes a hardness belonging rather to cartilage than any other structure." (P. 15.)

Numerous causes may give rise to the formation of permanent stricture. Whatever will produce inflammation of any particular portion of the urethra, whether it has a specific or a spontaneous origin, will equally tend to cause an alteration of structure at the affected part. Gonorrhœa is the most common foundation of the disease. After the first stage of it, a chronic form of inflammation remains, which is peculiarly favorable to that deposition of lymph and thickening of the parts which is the cause of the canal being afterwards permanently narrowed.

"This seems to be exemplified by the circumstances attending gleet, for it frequently happens that when this discharge has continued for a considerable time, it is kept up in consequence of the formation of a stricture. During the time I was house surgeon at St. Bartholomew's hospital, I had frequent opportunities of examining patients who were suffering from a gleet of one or two years' standing, and all the remedies used had been ineffectual. When a bougie was passed, a stricture was usually discovered in some part of the canal.—Another cause of the formation of permanent stricture is the employment of too-powerful astringent injections in the cure of gonorrhœa. These, no doubt, will stop the discharge; but they induce at the same time a chronic inflammation in some part of the urethra, which at length terminates in a permanent contraction." (P. 17.)

Upon this point there is some difference of opinion. Mr. Hunter, for instance, declares that he has found stricture exist as frequently after gonorrhœa where no injection had been used, as where they had been employed.

After a brief examination of the causes of permanent stricture, and those forms of disease to which the urethra is most liable, Mr. Stafford proceeds to describe the most usual situations of permanent strictures, their symptoms, and their consequences.

Chap. 2d.—Strictures have been known to form in every part of the urethra, excepting in that portion of it which is surrounded by the prostate gland. Their most usual situation, however, appears to be where the canal is narrowest.

"Thus they are most frequently met with at the entrance into the membranous portion, immediately behind the bulb, in the membranous portion itself, and about four inches and a half from the orifice. These, according to measurement, are the most con-

lined parts of the urethra, and it is probable that they are more liable to become strictured on account of their being exposed to the stream of urine, from their protrusion into the canal. In the same manner we find strictures of the œsophagus to occur where the funnel of the pharynx narrows into the gullet; strictures of the cardia, where the passage is straitened by the muscular fibres of the diaphragm; again, at the pylorus, where the bag of the stomach contracts into the duodenum; and, lastly, in the rectum, where the sigmoid flexure turns over the ridge of the sacrum. At these different points the canal receives the impulse of the contents as they pass, and, if predisposed, are excited to inflammation, ending in thickening and stricture. In a similar manner, in the urethra, the more contracted parts receive the momentum of the stream of urine, and, if predisposed, become inflamed, and, when once inflamed, the same causes continue to keep up that state, and to aggravate the affected part. This I am inclined to think is the cause why strictures more frequently occur at particular points. But there are other situations, also, where it is not uncommon for strictures to exist: the orifice itself is often contracted, and the part three inches and a half distant from it. Mr. Hunter considered that the bulb itself was most liable to the attack: I am inclined, however, to agree with Mr. Macilwain, that the affection most commonly occurs immediately behind it; and this I am led to infer, both from experience and also from comparing together the specimens preserved in our museums." (P. 25.)

Those who are afflicted with strictures are occasionally attacked by shooting pains in the perineum; they are subject to nocturnal emissions, a gleety discharge, attacks resembling gonorrhœa, and a constant desire to make water.

"Sometimes they have a fluttering sensation at the strictured part; sometimes a cluster of vesicles, which have been called 'herpes præputialis,' followed by ulcers, will make their appearance upon the glans penis, without any apparent cause, just as vesicles and ulcerations break out about the mouth, indicating an irritable and inflamed state of the mucous membrane of the alimentary canal; and sometimes great irritation may subsist at the orifice of the urethra." (P. 30.)

More serious symptoms occasionally depend upon the presence of stricture. The semen is prevented from making its exit at the time of coition. When this is the case, it is thrown backwards towards the bladder, and makes its exit some time afterwards. Swelled testicle, it is well known, is often a concomitant symptom. When a patient has long been afflicted with strictures, the urine frequently passes away involuntarily, and he has a constant desire to make water. Numerous morbid changes occur in the urinary organs from obstruction in the urethra. Mr. Stafford has known a fistu-

lous passage to extend from the urinary canal to the back part of the thigh.

“ By these fistulous passages, the urine, at the time of micturition, makes its escape, instead of through its natural channel; and, when they have continued for a long time, their sides become hardened; and in some instances they are lined by a kind of membrane. Specimens of this description are to be seen in the College of Surgeons. In one case there are two fistulous passages, which resemble regular mucous canals, being lined by a membrane analogous to the mucous tissue. It is a curious fact that, if a false passage be made, leading from one part of the urethra to another, and the urine passes through this new channel, it is also found to be lined by a membrane, or what looks like a membrane, and it has the appearance of a natural-formed canal. This I have seen in one or two instances; and my friend Mr. Lawrence mentioned to me a case where he found, in the urethra of a gentleman who had been in the habit of having bougies passed, a new canal formed, of between two and three inches in length, commencing anterior to the bulb, running close along the side of the natural canal, and terminating in the prostatic portion. This canal had a smooth mucous surface, very similar to the urethra itself. In a case also which occurred to myself, the urethra, in that portion of it which passes through the penis, was impervious; but immediately under it there was a newly-formed passage, which likewise was lined by a membrane of the same description.” (P. 39.)

*Treatment of Spasmodic and Inflammatory Stricture.*—Mr. Stafford observes, that “ stricture of the urethra has been, and still is, considered by many surgeons as a mere mechanical obstruction, without the least reference to it as a disease produced by inflammation. If a bougie can be passed through the stricture, it is sufficient: no further treatment is considered necessary.” We really believe that there are very few surgeons who are amenable to this accusation, and still fewer who require to be informed that “ other means can be employed,—such as local bloodletting, soothing the parts, and attention to the general health. The subsequent observations upon the subject of treatment are very judicious, but, as the substance of them may be found in most works upon the same subject, it is not necessary we should dwell upon them.

The next chapter is on the treatment of permanent stricture, which we have seen is the principal object of the work. In cases of permanent stricture, we have to contend with a part of the urethra irregularly thickened, and so indurated as to resemble the structure of cartilage; and with a narrow canal, contracted to that degree, and so extensively, that it is

either quite impermeable, or it will only admit through it the smallest-size bougie.

“ To effect a cure of these states of the urethra, we have to enlarge the contracted passage; to procure the absorption or destruction of the surrounding thickened tissue; and to restore the parts to their healthy condition.

“ The different plans which have been adopted to permeate this description of stricture, and to restore the urethra to its healthy condition, are four in number. First, it has been attempted to make the part ulcerate by the continued pressure of a bougie upon it. Secondly, some surgeons have endeavoured to force through the contraction with a conical sound. Thirdly, caustics have been applied to the diseased part, with the view of destroying it. And, fourthly, the part has been divided from the perineum. The two former of these plans of treatment, the endeavouring to make the part ulcerate, and the forcing through the contraction with a conical sound, are now, from the danger and uncertainty with which they are attended, totally relinquished; and the two latter, the applying caustic, and the division of the stricture from the perineum, are the only means which are at present practised. These, however, are also attended with great risk. The destruction of a permanent stricture by the application of caustic, is an extremely tedious and painful process, uncertain as to its final result; and at the same time, as will presently be shewn, symptoms frequently arise that endanger the life of the patient. The division of the stricture from the perineum is a very difficult and painful operation: it is often unsuccessful; and, also, it is so little susceptible of being reduced to fixed rules, that it can hardly become a measure of general adoption.” (P. 63.)

With respect to the treatment of stricture by caustic, its most strenuous supporters admit that it is often followed by alarming symptoms. Sir EVERARD HOME mentions many of these ill effects, and, amongst others, that very profuse hemorrhage is sometimes caused by the application of lunar caustic. He relates six cases, in all of which the patients were much reduced by loss of blood, and some of them bled so profusely that the quantity lost amounted to two or three pints. When this mode of treatment does succeed, it is frequently very tedious. The potassa fusa is said to be still more objectionable.

Having pointed out the imperfections of the more common methods of treating this form of stricture, Mr. Stafford proceeds to explain the plan which he has adopted.

“ It is the division of the diseased part within the canal of the urethra. The advantages of this mode of treatment are, that it effects with certainty, and in a short time, what the caustic is intended to accomplish by repeated and tedious applications; and



it is free from the difficulties of the operation for the incision of the stricture (an operation little less painful than that for lithotomy,) through the perineum, thereby saving the patient the inconvenience and misery of a new channel, leaving but little for nature to repair; and at the same time allowing the urine to flow through its natural passage. For this purpose I have invented two instruments, the one to divide permanent strictures, while yet a small bougie or wire can be passed through them; and the other to divide those strictures which are impermeable.

"The instrument for operating on permeable strictures (which, for the sake of distinction, I have called the Double Lancetted Stilette,) consists of a round silver graduated sheath, open at both ends, of the size of No. 10 catheter, with rather a less curve, and of a stilette, which is also hollow, and open at both ends. This stilette is furnished, at one end of it, with two oblong lancets; and at the other with a handle, resembling a button. When the instrument is complete, the stilette fits into the sheath, so that by pushing the handle the lancets will project from the extremity of the tube, and by drawing it back they will retire into it again. When used (the mode of doing which will be presently explained), the instrument is passed over a wire down to the stricture, and the lancets are thrust forward on each side of it, by which the contraction is made as large as the natural size of the urethra.\* The armed stilette, intended to divide impermeable strictures, exactly resembles the one just described, excepting that, instead of the stilette being hollow, it is solid, and in the place of two there is only one lancet.

"Before using the instruments, the exact distance of the stricture from the extremity of the urethra should be ascertained. In the armed catheter, which is intended to divide strictures over the wire which serves as a guide, the wire must be introduced through the stricture first. The mode of accomplishing this is by passing the smallest possible sized catheter, made to contain the wire, into the bladder. The wire, which is double the length of the catheter, and blunted at one end, so that it may not injure the bladder, is then pushed forward, and the catheter gradually withdrawn, by which the former is left in the canal of the urethra. The armed catheter is then passed over the wire, until its point rests against the stricture, (which is known by means of the graduation,) and, being held securely in such position, the handle of the stilette is pressed gently and gradually. As soon as any impression is made, the lancets should be allowed to retire into their sheaths, and the blunt point of the instrument urged forward. If it do not pass on, the lancets may be again used as before. After the stricture is divided, the armed catheter should be withdrawn, and its place

\* "This handle has hitherto been formed like a button; but I have thought it would be of advantage to have it made like two rings, large enough to admit the finger and thumb, similar to the handle of a pair of scissors."

supplied by one of elastic gum, of the same size. This should remain for a day or two, to prevent the reunion of the divided parts, and to preclude the possibility of extravasation of urine; and, on its removal, a bougie should be passed twice in the week, or as often as may be judged necessary, for some time; and the same treatment adopted as for stricture in general. The armed stilette, intended to divide impermeable strictures, must be used precisely in the same manner as the other, of course excepting the wire, which cannot be introduced; and the same directions for the after treatment are necessary for both.

"In some of the cases in which the instrument has been employed, the division of the stricture has been followed by more or less inflammation, but seldom amounting to a great extent. Such an occurrence should be guarded against by the application of leeches to the perineum immediately after the operation, and by a strict adherence to the antiphlogistic regimen. If the presence of the catheter that is left in the urethra cause considerable pain, it must be withdrawn; but in this case it is of material consequence to pass a bougie daily, lest the divided parts reunite.

"It may be objected to the use of these instruments, that there is a liability of making by them a false passage. This is prevented, in the permeable stricture, by the wire acting as a director, and limiting the incisions to the size of the natural canal, so that it is impossible to deviate from the course of the urethra. With regard to the second case, or when the stricture is not permeable, it must be admitted that, in unskilful hands, or by violent means, a false passage may be formed; but that, with common care, this is not likely to occur, is proved by the result of not less than twelve cases of impermeable stricture, where I myself have used the armed stilette, or have seen it employed. In no case was there any false passage made. I very much question, however, if the same number of cases had been treated by caustic, whether they would have been attended by the same success. On the whole, therefore, it may be safely inferred that, although it is possible that a false passage may be made by the single lancetted stilette, yet with common care it may be avoided. It might, perhaps, also be thought that considerable hemorrhage would follow the division of the stricture by these instruments, and that they would produce much pain; but, in the cases in which it has been employed, the bleeding has been inconsiderable, and the pain trifling." (P. 70.)

The author has never had an opportunity of examining the parts after the use of his instruments, but he presumes that the urethra is afterwards restored to its healthy condition; for, in passing the catheter or bougie at different periods after the operation, he never found any hardness at the diseased part. It is not only in the urethra that Mr. Stafford has remarked that the division of an indurated structure will cause its absorption:

"In one instance, where Mr. Lawrence operated for the stone, there was an extremely enlarged and hardened prostate gland (so hard that it resembled the structure of gristle); and this, some time after the operation, became of its natural size and structure. In a case, also, where Mr. Titus Berry divided a hardened contraction of the œsophagus with the armed stilette, the part was restored to its natural character. It is almost impossible to say, for certain, by what process this is effected: it is, nevertheless, a very valuable fact, and one which is well worthy the notice of the profession." (P. 79.)

The cases in which the armed stilette appears likely to be most beneficial, are those where the contraction is so hardened, and of so unyielding a nature, that it will not admit of being dilated at all, or where we can only obtain a temporary cure.

"In these cases the division of the diseased part would be of great advantage; for, by one incision of the armed stilette, the contracted portion would be made as large as the rest of the canal; and, at the same time, (at least judging from the cases where strictures of this description have been already divided by this instrument,) the induration would completely disappear in the course of a month or six weeks, or even less time, and the stricture would be permanently cured." (P. 81.)

In cases of partial and total retention of urine, the armed stilette would be found particularly serviceable, and in all those instances where there has been extreme difficulty in passing a bougie or catheter, the double lancetted stilette would at once relieve them. "In retention of urine, also, where the stricture is quite impermeable, it certainly must be allowed to be far better to divide it with the single lancetted stilette, than to puncture the bladder."

Fifteen cases are detailed in which the instruments were employed. In one only they were unsuccessful. In this instance the patient died; but we agree with the author that it appears more than probable that the fatal termination of the case could not be attributed to their use. From the experience which Mr. Stafford has now had of the lancetted stillettes, and from the success which has attended their use, he hopes that they may, in some cases, supersede the necessity of more serious operations; and, in others, afford relief with greater certainty than the means at present employed.

It is not for us to speak dogmatically upon a subject with which we are not practically acquainted. We cannot, however, feel quite confident of the entire safety of these instruments, although we admit that there are cases in which we might be inclined to use them, upon the principle of *de minima malis*.

Mr. Stafford once in the course of his work slightly mentions his belief that the French and German surgeons have attempted the division of strictures within the canal of the urethra, "but by what means, or with what success," he is unacquainted. The practice is certainly not new; but we are indebted to Mr. Stafford for having improved upon the instruments\* which have been employed for the same purpose by AMUSAT and others.

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*Cases of Mental Disease, with Practical Observations on the Medical Treatment. For the use of Students.* By ALEXANDER MORISON, M.D. President of the Royal College of Physicians, Edinburgh; Member of the Royal College of Physicians, London; Lecturer on Mental Diseases, &c.—8vo. pp. 164; with Plates. Longman and Co. London, 1828.

THE object of this elementary publication is to present to students a collection of cases of ordinary occurrence, in which the medical treatment usually employed is detailed. By the advocates of craniological phrenology, an attempt has been made to shew that the different kinds of partial insanity are dependent upon different morbid states of particular convolutions of the brain, in which Dr. GALL says the different propensities and affections reside, and they direct topical treatment to the supposed diseased organ. But, if we examine the brains of those who have laboured under monomania, we find the proofs of disease, such as inflammation or its consequences, existing in more than one convolution, and diffused over the membranes covering them. The arrangement proposed by PINEL and ESQUIROL, founded on the morbid manifestations of the mental functions, appears to Dr. MORISON better suited to the present state of our knowledge. In proof of the applicability of this mode of arrangement, he states that, in a collection of nearly three hundred cases, taken indiscriminately with a view to ascertain this point in regard to practical purposes, he has found little difficulty in assigning to each a definite place in it.

The author first makes a few observations on the general principles upon which the medical and mental treatment are founded, before he proceeds to the detail of cases. "In every case of mental derangement, it is presumed that more or less corporeal disorder exists. Hence the propriety of dividing the treatment into medical and mental, or, as it has been usually termed, moral."

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\* The instruments are made by Fergusson, Giltspur street, St. Bartholomew's Hospital.

Our readers are probably aware that a few writers contend that mental derangement may exist without any corporeal affection. We have, however, no doubt that the opinion expressed by Dr. Morison is perfectly correct. We have so frequently touched upon this subject that it is unnecessary we should again cite any particular authorities in corroboration of the doctrine maintained in the present work. They who have had the most experience in mental diseases, and whose works betray the least disposition to indulge in speculation in opposition to facts, agree that mental disease presupposes either disease of structure or derangement of function in some part of the body.

“ In the employment of the former, we are directed by indications, presenting themselves, to counteract the various deviations from the healthy state which may occur in the corporeal functions. The first object of inquiry is the origin of disease. In every case where the mind is disordered, it is now generally admitted that its organ, the brain, is either primarily or secondarily affected; probably not so universally the former as some late authors contend. Still, in every case, our attention must be first directed to investigate its probable condition, which varies in different cases. In some, the irritation of this organ attending the mental derangement is inflammatory; in others, a state of active congestion, or fulness of blood-vessels, without inflammation, prevails. This fulness, again, may be of a passive description, depending upon a semi-paralytic dilatation of the cerebral vessels. With a view to obviate these morbid states of the blood-vessels in the head, the abstraction of blood generally or locally,—the application of blisters,—the insertion of issues,—and the application of cold, are all indicated, more or less, in different cases, and upon rational principles, as well as other evacuations tending to diminish determination of blood to the head; and, to remove the effects of these morbid states of the vascular system, such as thickening of the membranes, depositions of serum, &c., certain remedies, supposed to excite absorption,—among others, mercury, diuretics, and local stimulants and drains,—have been employed.

“ The influence exerted upon the brain by disorders existing in other organs, leading to derangement of its functions, appears to be intimately connected with the state of the nerves and ganglions of the great sympathetic nerves, supplying the organs of digestion and of generation. The unusual sensations experienced in the abdomen leading to erroneous ideas respecting their nature, so common in some varieties of insanity, as well as those occurring in epilepsy and hysteria, are, it is probable, phenomena of a deranged state of this system. How great an effect slight irritation thereof may produce, is proved by delirium and convulsions, symptoms dependent on the nervous system, including the brain,

being produced by worms in the intestines irritating the extremities of these nerves, without any reason to suppose inflammatory action.

“ Where abdominal irritation, then, may be supposed to exist, the employment of remedies acting upon the stomach and bowels is rationally indicated, and they are of extensive utility in mental disorders. The connexion of the genital organs with mental disorder is likewise well ascertained. In females, menstrual irregularities and other uterine affections; in males, onanism and excessive venery, are frequently followed by or attend upon insanity. Hence the good effects sometimes produced by the re-establishment of the menstrual, the occurrence of the hemorrhoidal discharge, and the removal of debility; and the propriety of employing medical treatment corresponding to these indications.

“ With regard to the nervous system itself, it does not appear irrational to suppose that regular distribution or congestion of that agent, which is the material vehicle of sensation, may take place in the nerves, that this ascendant fluid may flow too rapidly or accumulate too much in certain parts of the nervous system, independent of sanguineous disorder, and produce increase of general sensibility and of muscular irritability, giving rise to painful and unusual sensations, the cause of those sudden delusions, and of those violent and irregular movements, so common in the insane. To mitigate or subdue those, recourse is had, and upon rational principles, to the soothing properties of the warm bath, and of narcotics of different kinds, and to the invigorating effects of tonics.

“ It is in directing the mental or moral treatment, however, that the arrangement, founded on the diversity of the mental phenomena, is chiefly useful; for cases arranged under the same head, and requiring similar mental management, may require very opposite medical treatment.

“ In order to conduct the mental treatment with efficacy, the most important object is to obtain full information of the patient's previous history, and particularly of the mental cause giving rise to, or at least intimately connected with, the production of the disorder. Such may be excessive application to business or to study, political anxieties, commercial difficulties, religious doubts, disappointed affections, remorse of conscience, and various passions. Possessed of such knowledge, we are the better able to appreciate the phenomena of his delirium, the association of his ideas in general, and the tendency of those ideas on which his mind chiefly dwells, thereby foreseeing and preventing mental irritation, removing or diminishing uneasy sensations, and lessening the frequency of fits of fury or of despondency.

“ On remissions occurring, we are the better able to direct the patient's attention to subjects least likely to agitate him, avoiding those on which the train of erroneous ideas or delusions depend. By ascertaining and applying what is most wished for, or making

him avoid what is most dreaded, we are the more enabled to exercise with judgment the opposite emotions and affections that may be suitable to the different kinds of partial insanity.

"In such cases, then, where mental treatment is applicable,—for in furious madness seclusion, medical treatment, and adequate restraint, and in chronic dementia and idiotism safe custody and kind treatment, only are required,—the leading indication is to diminish and remove delusions or erroneous ideas, by exciting the attention, and by withdrawing it from favorite but hurtful subjects of thought. With this view, recourse must be had to occupation exercising the body or employing the mind, or both, by such means as labour of various kinds, active or sedentary amusements, walking, riding, travelling, music, drawing, reading, &c. In general, it may be observed that a daily round of easy occupation, not attended with danger, ought to be established, in which the patient may be employed, as, in the discretion of the physician, may seem best adapted to his former habits and his present state. Where numbers of patients are assembled, the treatment to be observed necessarily requires a judicious classification; for it would be highly prejudicial to allow those who have their particular dislikes, those who may awaken distressing ideas in others, or those who may strengthen each other's delusions, to be together.

"The excitement of certain emotions or passions is sometimes of use in mental treatment: in particular, the agreeable emotions of hope and of religious consolation, and the disagreeable ones of shame and of fear. To excite the latter in a moderate degree, certain mechanical means have been employed, as the rotatory machine and the douche of cold water; and they have been sometimes employed with advantage. A few cases are on record where dexterously humoring the patient's delusion has been successfully tried; but these are so rare that little dependence is to be placed in that mode of treatment. To conclude, it must be kept in mind that no general rules of mental treatment can be laid down applicable to every case. Each patient must be studied individually, in order to acquire such knowledge of his mind as to enable us to control and regulate its operations." (P. 4.)

After these brief general remarks, the volume consists entirely of a detail of fifty-one cases of various species of insanity, upon each of which the author offers short observations. They are all interesting as practical sketches, although we perceive no particular novelty either in the general course of the various shades of mental disease which are described, or in the treatment which was adopted. We shall select a few of the most interesting examples.

"*Intermittent Mania*.—A. O. H., married female, æt. thirty-three.

"June 12.—About a month ago she shewed symptoms of mental disorder, being five months after childbirth. The first sign of

it was her attempting to go out by the window, having previously taken leave of her children. Afterwards she expressed aversion to them, to her house, and to every thing about it, with a continual desire and attempts to wander about.

"At present her disorder assumes a periodical form. In the morning, as soon as she awakes, she begins to talk incoherently, and is incapable of restraining herself: she continues in this state until noon, or a little longer. In the evening she is perfectly calm and collected. This is the first attack of insanity under which she has laboured, and there is no reason to suppose that she has a hereditary tendency to it. The failure of her husband's circumstances preceded its appearance.

R. Pulv. Rhei gr. xv.; Calomel gr. ij. M. sumat statim, et pro re nata.

R. Pulv. Cinchonæ ʒj. sextis horis abs. parox.

"25th.—Has made rapid progress towards recovery.

"July 5th.—Is desirous of returning to her home.

"23d.—No signs of mental disorder remain.

"In this case the usual treatment of intermittents was eminently successful." (P. 51.)

Cases of *Demonomania* are by no means common. Women are more frequently affected with it than men. Two or three cases have fallen under the observation of the author. Esquirol has met with several; in one of which a woman conceived that the devil had run away with her former body, of which her present one was only a shadow. She endured the most dreadful uneasiness,—was in fear of eternal damnation night and day,—conceived herself surrounded by flames of brimstone,—and heard devils within her disputing who should possess her. These horrible ideas, as might be expected, deprived her of sleep and appetite. She was likewise in the habit of beating herself severely. The sensibility of her skin, however, was so much blunted, that pins could be thrust through it without her seeming to feel them.

*Case of Demonomania.*—"A. G. O., married female, æt. fifty.

"Feb. 2d.—About five months ago she became insane, for the first time. Her disorder at that time manifested itself by extreme melancholy, and by talking to herself incoherently. In this state of depression she continued till about a fortnight ago, when her disorder assumed a more active character: if contradicted or opposed, she was much agitated, and occasionally violent; her actions were irrational, and she frequently talked of royalty; but her present conviction is that she had sold herself, her husband, and her son, to the devil, and that she is therefore excluded from divine mercy.

"She has not attempted to commit violence upon herself or upon others, and there is no reason to believe her complaint to be hereditary.



"She has occupied herself much in reading old religious books.

R. Pulv. Rhei gr. xv.; Calomel gr. ij. M. statim et p. r. n.

"12th.—R. Antimonii Tartar. gr. ij. omni mane.—R. Camphoræ gr. v. Extr. Hyoscyami gr. v. M. forma pil. h. s.

"22d.—No change.

Omitt' Antim. Tartar.—R. Pulv. Serpentariæ ʒj. ter die.

"March 1st.—Is now apprehensive respecting her own health, and has absurd notions about the state of her abdominal viscera." (P. 75.)

The following case is worthy of notice, on account of the observations Dr. M. makes on the use of camphor.

"A. J. G., female.

"August 21st.—Has been several years in a state of insanity, the prominent feature of which is unfounded fear and alarm, with melancholy. She likewise says that she has lost all the feelings of a human being, and resembles a brute, and that she cannot feel towards her children as she should do. She is weak in body, and has rheumatic pains in her back.

R. Sp. Camph. ʒj.; Liq. Ammon. Carbon. ʒijj. M. fiat P. linimentum dorso applicandum.—R. Camphoræ gr. x. bis quotidie.

"Oct. 9th.—The use of camphor has materially added to her comfort. She says that she has much less anxiety than she used to have, and expresses her gratitude.

R. Camphoræ gr. x. quater in die.

"Dec. 14th.—Is materially improved; feels herself comfortable, and is more able to work than she has been for years.

R. Camphoræ gr. x. sexties in die.—R. Infus. Cascariæ ʒjss.; Acid. Sulph. dilut. m. xx. M. bis quotidie.

"It is conceived that decided advantage has been derived from the use of camphor, which was continued to the extent of nearly ʒiv. daily: the serenity of her mind, after so much perturbation, was remarkable. Under the use of it she continued to improve, became very orderly and comfortable. After some months the dose was gradually decreased, without change of symptoms, and it was left off entirely by substituting bread-pills, that her mind might be satisfied during the weaning her from it. In July, medicines were discontinued, and a year afterwards she continued well.

"The mode of operation of camphor is not yet well understood: it generally increases the heat of the skin, and in large doses appears to be powerfully sedative. The late Dr. Alexander, when making experiments, nearly killed himself by taking ʒij. at once, which he fortunately was made to reject by vomiting produced by warm water. It has been much used in mental diseases: Aenbrugger recommends it particularly when the pulse is slow, the countenance pale, the hand cold, contracted, and trembling; and, in men, when the genital organs are cold, the penis retracted, and the testicles drawn up towards the pubis!

" Dr. Perfect made use of it in large doses, such as ℥ij. for a dose; but it must be confessed that, though we now and then find a cure apparently produced by camphor, it is but seldom. In the above case, it is true, camphor was exhibited successfully, and in very large doses; and still larger are upon record. Dopson says he gave a furious maniac ℥ij. of camphor in the course of twenty-four hours, ℥j. at a time; and during the following day the same quantity; and that a perfect cure was accomplished. Hufeland is said even to have injected camphor into the veins of an insane female, and to have cured her.

" We must not, however, forget the violent effects occasionally produced by large doses, as in the experiment of Dr. Alexander; and, indeed, that death itself has actually been produced by them." (P. 85.)

In cases of *Erotomania*, or partial insanity with love, the doctrines of GALL and others have led to the topical application of remedies to those parts of the head corresponding with the supposed cerebral organ within in a state of disease. Bleeding, in particular, is said to be very useful in this variety of partial insanity. The author admits that detraction of blood from the back part of the head is of service in cases where amatory excitement prevails: but he believes, and we think truly, that we shall find this to be the case in all the varieties of mental disease in which bloodletting is beneficial.

The use of opium in insanity is not so well understood as we could wish. It is by no means easy to discriminate the cases in which it ought to be employed.

" Vascular excitement is what chiefly deters us from its use; for, if there be inflammatory action or congestion of blood in the brain, opium may be productive of serious mischief by increasing these states, thereby exciting increased violence and fury.

" We must likewise attend to its effects of costiveness and diminution of the secretions, on which account the hyosciamus is in many cases to be preferred.

" All these considerations, however, are not to deter us from the proper use of this valuable remedy.

" When want of sleep occurs, which it so frequently does in insanity, after the necessary sanguine and alvine evacuations have been made, opium may be tried in most cases, especially if the disease has lasted some time.

" When the disease begins to subside, and the patient, beginning to convalesce, is kept awake by fear, jealousy, or suspicion, opium (if the above circumstances do not forbid) will be found of much service.

" Where grief and disposition to shed tears prevail, opium will frequently be of use; as well as in those cases connected with intemperance, particularly in delirium tremens, when the pulse is small and frequent.

"The quantity that may be given is greater than what those in a state of mental health in general can bear, but it is not safe to give a large dose at first: it is better to begin by a grain or two, and gradually to increase it. The largest quantity I have heard of being given, was in a case treated by Dr. Galloni, of Rheggio. This was a male patient, whose complaint, in the commencement, was treated as phrenitis by copious evacuations of blood, and who remained in a state of furious mania upwards of three years, during which time various sedatives, among others digitalis and hyosciamus, were given. At last a trial was made of opium. He began by giving one grain four times in the twenty-four hours, which he gradually increased to ten grains four times a day. Some abatement of the fury was produced, but, symptoms of dropsy appearing, the opium was discontinued. Some time after, the opium was again resorted to, beginning with the same dose of four grains in twenty-four hours, and gradually increased to 170 grains in the day! The result was, that his fury abated, his ideas became more coherent, he was induced to occupy himself in drawing, and a complete cure followed. The opium was left off in the same gradual manner." (P. 115.)

In many cases of cerebral disturbance, which may not amount to positive insanity, and in insanity also, we may certainly be justified in cautiously trying the effects of opium. In these instances, and where the mind is really deranged, we should prefer the *Liquor Sedativus* of Battley. Its sedative powers are as much to be depended upon as the tincture of opium, and it is infinitely preferable whenever we have reason to be apprehensive of increasing the actions of the vascular system. It also possesses the negative merit of rarely constipating the bowels. We have frequently found patients derive much benefit from the use of this preparation, who could never bear the tincture of opium even in the smallest doses.

In visiting private asylums for the insane, Dr. Morison has frequently observed that the difficulty of procuring proper machines for administering the douche, and rotatory motion, has prevented the medical attendant from making a trial of them. He has therefore given drawings of machines for each of these purposes, which may be erected at little expense by any intelligent carpenter.

Many good practical remarks are appended to several of the cases, the detail of which we have not thought it necessary to give. The author cautions us against too indiscriminate an employment of purgatives. The milder ones, and in moderate doses, in general succeed better than the very drastic purgatives. It is chiefly in the early stages of mania and monomania, where the strength of the constitution is

undiminished, that calomel and jalap are most beneficial. The cold bath is unsafe, unless reaction takes place after it: hence the propriety of not continuing it too long. Considerable caution is necessary in the employment of emetics. When inflammatory action or congestion in the head prevails, these should be diminished before having recourse to emetics. Some insane patients bear very large doses of the tartar emetic. We remember a lady, whom we attended with Dr. BURROWES, who took ten grains of the tartar emetic three or four times, at short intervals, without any sickness being produced. It is prudent to begin with the ordinary dose. Frictions with tartrate-of-antimony ointment has been much employed in cases of mental disorder, especially by Dr. MULLER of Wurzburg. The experience of other physicians does not confirm his favorable reports. Where the suppression of a cutaneous eruption has accompanied the mental disease, the frictions have appeared useful.

The variety of appearances observed in the encephalon of the insane is so great, that we are not yet able with certainty to draw many useful inferences from them. On the continent, attention has lately been directed to the state of the great sympathetic nerve and its ganglions; and morbid alterations, such as inflammation and induration of the latter, and increase of size, with induration, of the former, have been found, in cases of mania and imbecility, by PINEL, TIEDEMANN, and AUTENRIETH.

As a preliminary study, this little volume will be consulted with advantage. We cannot with propriety complain that the various subjects are treated in a superficial manner, as the author does not profess to give more than a practical sketch of the different species of insanity.

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*A Rational Exposition of the Physical Signs of the Diseases of the Lungs and Pleura: illustrating their Pathology, and facilitating their Diagnosis.* By CHARLES J. B. WILLIAMS, M.D.—8vo. pp. 192. Underwoods, London, 1828.

THIS work is divided into two parts: the first contains an exposition of the general physical signs of a healthy and diseased state and action of the thoracic viscera, to which is prefixed a chapter on the properties, &c. of sound; the second comprehends the pathological history, and physical signs of the principal diseases of the lungs and pleura. At the end of the volume, tabular views are given of the physical signs, illustrated by a plate shewing the situation of the regions of the chest. A diagram of the stethoscope, and an accompanying explanation of the best principle of its con-

struction, are also added. The author states very candidly in his Preface, that most of the facts which he has described have appeared in the works of LAENNEC and ANDRAL. Wherever his experience has not enabled him to give the same as the result of his own observation, he has referred to their competent authority. Where, in point of fact or opinion, he has differed from them or from others, he would modestly wish his dissent to be viewed rather as a question to be answered by others, than as in itself superseding former observations or opinions.

Chap. 1. *On the Physical Signs of Disease.*—By *physical signs*, Dr. Williams means such as depend on the direct operation of known laws of natural philosophy on our organs of sensation.

“As they are produced by the physical state or condition of a part, they become indications of that state or condition, as certain as the laws, of which they are exemplifications, are unerring and sure: and the physical state of a part of the body may be ascertained with more or less certainty, as its physical signs, or relations to these natural laws, are more or less appreciable by our senses.” (P. 1.)

The number of diseases that come under the cognizance of vision is very limited, as by far the greater part of the body is excluded from its sphere.

“Derangements of the surface, and of the openings of some of the passages to the interior, can alone be subjected to the direct examination of the eye. Mediatly, physical changes of internal organs can be perceived by signs only, when their size, form, or position is so far altered as to cause displacement of some external part; and the knowledge that such a sign gives us, although scanty, is often valuable.” (P. 2.)

In the same cases, the sense of *touch*, or *tact*, will furnish us with further knowledge as to the form, substance, and constitution of a diseased part; and, when perfected by experience, may frequently discover organic changes that are altogether imperceptible to sight. In some cases, the sense of *smell* may assist us in diagnosis. In the last January Number of our Journal, p. 62, we gave, from HECKER's “*Litterarische Ann. der gesammten Heilkunde*,” an interesting paper on this subject. The author of this communication, Dr. VOGEL, remarks “that if the changes in the odour of the breath were more carefully observed, the diagnosis of the physician might be improved, particularly in febrile diseases.”\*

\* It is said that a practitioner in Berlin, from having a very acute smell, is frequently enabled to determine the particular species of exanthematous dis-

"Sound, as it may be both generated and propagated in every form of matter, solid, liquid, and aeriform, may be therefore considered a mean of examination of parts removed from sight and tact, more promising as its sphere is less limited. It is requisite, however, that the object of examination be capable of producing or transmitting audible sound; and that changes in the part produce corresponding changes in sound thus produced or transmitted, that may be appreciated by the ear. The relations of the organ of hearing to the qualities of external objects are, in ordinary life, much less exercised than those of tact and vision. Yet continual experience proves to us that the substance or consistence of simple objects is, in some measure, declared by the sound which they emit when struck. The sound of liquids in contact with air is familiarly distinguished from that of solids in the same medium, and a little more attention discovers the varied sounds which air in motion produces in contact with solids of different forms." (P. 3.)

The perfection of our sense of *hearing* must in great measure depend on the practice of each individual. A knowledge of simple sensations cannot be transferred by description.

Chap. 2. *On the Physical Signs of the State and Action of the Thoracic Viscera.*—In the first section, we have a slight sketch of the variety of sound which will be yielded by striking gently with the fingers the different parts of the chest of a person in health. If the density of the organs contained in the thorax is changed by disease, the pectoral resonance will of course be modified.

"If, for example, a liquid or solid effusion take place in any part of the lungs or pleura, the corresponding portion of the chest will yield a dull, dead sound, and without that hollow resonance which is naturally produced by air underneath. On the other hand, when the aeriform contents of the cavity are increased beyond their usual proportion, as in pneumothorax and emphysema, the natural resonance may be increased to a degree that sounds quite tympanitic." (P. 18.)

As the practice of percussion requires some manual dexterity, and as on this, in great measure, depends the correctness of its indications, Dr. Williams offers a few observations on the best method of performing it.

"It is of very little consequence whether the patient be sitting or standing, or sitting up in bed, provided we hold in mind that all the sounds, bad and good, are rendered somewhat duller in the latter case by the vicinity of the pillows and bedclothes, which destroy the resonant echo accompanying sounds in more empty rooms. The same amount of difference may be perceived in

cases before the appearance of the eruption, entirely from the peculiar odour of the patients.—REV.

different rooms, when percussion is practised in the standing or sitting posture. In some cases of debility, and of painful disease, the patient can bear no other than the recumbent posture; and, in the parts where percussion can be practised, the sounds are somewhat more dull in these cases, from the deadening effect which the bed has on them. Thus warned, a little practice will enable the student to avoid error from these causes.

“The part on which percussion is practised should be covered with a linen or cotton garment, to render the stroke of percussion more equable, and to prevent its producing pain; and for this purpose a shirt or bed-gown kept on answers very well, if care be taken to keep it smooth and close on the surface by the fingers of the left hand.” (P. 18.)

Every necessary detail upon this subject will be found in Laennec and other writers. In some cases in which the parietes of the chest are particularly tender, mediate percussion, in the manner recommended by M. PIERREY, will be most proper. This is done by interposing a thin lamina of wood, horn, or ivory, on the part to be struck, so that, while the impulse of percussion is perfectly transmitted to the interior of the chest, it is so diffused on the surface covered by the lamina as not to produce pain. The indications obtained by percussion, although they only relate to the density of the parts, are of great value, and alone may sometimes, in the opinion of the author, detect diseases that all other signs leave in obscurity. But their importance and value are vastly enhanced, when they are combined with the more numerous and precise signs discovered by “*auscultation*,” which forms the subject of the next section.

The signs of auscultation are those sounds produced in the chest, which may be heard by the direct or mediate application of the ear to its parietes. The author endeavours to trace these sounds to their physical causes, “and, by thus exploring the relations of diseases to certain and unchanging laws of natural philosophy, to place their characters beyond the doubtfulness and obscurity of sympathetic and sensory signs.” There is a considerable difference in the intensity of the sound of respiration in different individuals; and this depends partly on the thickness of the parietes of the chest, but principally on the degree of activity of the respiratory function. Dr. W. gives a general view of the physical signs of the state of the lungs; and, as all the phenomena noticed may be explained according to the laws of acoustics, it is presumed we shall not meet with any greater difficulty when examining them more minutely as the signs of particular diseases.

As, in many cases, there are objections to immediate auscultation, the stethoscope should be employed in general practice; and Dr. W. very truly observes, that well-regulated practice in the use of this instrument is worth a volume of directions and cautions. The mode in which it is employed is, however, briefly described.

Part II. *On the Physical Signs of Diseases in the Lungs and Pleura.*—The author has hitherto considered physical signs only with relation to the natural or physical state, and the general pathology of the lungs. He now enters upon the forms or characters that individual diseases present to the auscultator.

We are told that the pathological cause of *bronchitis*, or pulmonary catarrh, "is an inflammation and altered secretion of the mucous membrane of the bronchia;" that there are several varieties, and perhaps even species, of this disease, and that they pass insensibly into each other. Inflammation of the mucous membrane of the bronchi at first causes tumefaction, and partial obstruction of their calibre. The passage of air through the bronchial tubes is thus modified; vibrations are produced, and these tubes are converted into instruments of music. According to the extent and nature of the alteration in the structure of these parts we shall have various sounds, of which Dr. Williams endeavours to convey an idea, by comparing them to a *whistle*, a *horn* or *trumpet*, a *violincello*, or the *cooing of a dove*. The attempt to convey to those who have not had opportunities of hearing the various sounds produced by different derangements of the aerial tubes, by these forced and imaginative comparisons, is really as absurd as it is useless. When once heard, they will not easily be forgotten, but they defy a precise or useful description. The various kinds of *r  le* have been so minutely described by Laennec, that we are not inclined to dwell upon the brief repetition with which Dr. Williams favours us upon this subject.

*Spasmodic Asthma.*—

"During the paroxysm the chest sounds ill on percussion, and the respiratory murmur is indistinct, even on the most forcible respiration. But if the patient, after holding his breath a little while, be desired to breathe again quietly, the spasm will be overcome as it were by surprise, and the entry of the air into the cells will be heard in a clear, and sometimes puerile, sound. This may be best effected in the manner recommended by Laennec, by desiring the patient to read aloud, or speak as many words as he conveniently can without taking breath, and then to breathe at his ease. But, after one or two inspirations, the spasm regains its hold, and the respiration becomes as dull as ever. The diminu-



tion of the respiratory noise here obviously proceeds from the obstruction opposed to the entry of air into the small bronchi and vesicles, by the tonic contraction of their muscular fibres. By the same contraction, the lungs are in a manner collapsed within the thoracic cavity, and the parietes of the chest, falling in with them, lose that sonorous elasticity produced by a fulness of aerial contents. The chest, thus contracted to the size of the collapsed lungs, may be compared to a drum, the parchment of which is pulled in by transverse strings. The free vibration is thus checked by these unyielding frena. Conceiving, as I do, that the contraction of the bronchial muscles is a sufficient cause of the phenomena of asthma, I gladly discard Laennec's hypothesis of the active dilatation of the bronchi, unsupported as it is by physiological fact, and opposed to all we know of animal dynamics.

"The dyspnœa produced by spasm of the bronchi is often of long continuance, and may to a certain extent become habitual. In such cases the system accommodates itself to the diminished supply of air, and the respiratory function is less called into action; but slight causes, either reproducing the want in the system, or increasing the spasm, will be sufficient to bring back the dyspnœa. Of the first class of causes are exertion, the sudden application of cold, &c.; of the second, depressing affections of the mind, and sympathetic irritations, produced by certain ingesta in the stomach and intestines. This second class includes usually those which originally produce the disease. I have seen a remarkable and exquisite case produced by the slow introduction of lead into the system; but such a form of saturnine neurosis is, I believe, rare." (P. 77.)

We pass over, without any apology, several of the succeeding sections, which, although they contain many proofs of the attentive observation of the author, are little more than brief surveys of doctrines and opinions more explicitly discussed by Laennec, Andral, and other writers.

*Phthisis Pulmonalis*.—Dr. Williams commences this chapter with an observation which does not appear to us perfectly correct. "The disease termed phthisis pulmonalis is produced by the formation of a particular matter called tubercle in the tissue of the lungs." Now, we apprehend that something more than the mere formation of tubercle is necessary to constitute the disease; for tubercle may exist for years without the appearance of any symptoms of pulmonary consumption. Neither do we apprehend that the existence of tubercle constitutes an essential part of pulmonary consumption, even taking the term in its strictest application. Catarrhal affection, long continued inflammation of the bronchi, are frequently marked by all the characteristic symptoms of phthisis, and will as fairly claim the addition

of the term *pulmonary* as those cases in which tubercle exists in the tissue of the lungs. The definition of the author is therefore, in our opinion, inaccurate as to the fact it expresses, and too limited in its extent. Dr. Williams first traces the progress of the changes which morbid anatomy has shewn tubercles to undergo in the progress of the disease, and afterwards inquires into their nature and origin.

The error of framing systems or general plans of medical science upon any exclusive dogmas, is very properly and eloquently deprecated.

"It is no partial observer that can form for us a philosophical and comprehensive system of medicine. It is not the mechanist; for, although the body is a machine, it is much more. It is not the chemist; for, although the body is a laboratory, it is much more. It is not the vitalist; for the body is not disobedient to physical laws. It is not the humoralist; for the solids have also their specific properties. It is not the solidist; for the fluids may change of themselves, or be changed from without. It is not the empyric; for neither bodies, nor even the body, are always the same. Nor is it the morbid anatomist; for his dissections teach him little of causes, or of their relations with effects. It is to him who is all, and none of these; who views the animal body as a machine of its own kind, obeying physical and chemical laws in unexampled complication, and further disguised by a combination with others peculiar to living structure; and who, duly regarding all these powers, seeks, in a change in their relations, the causes and the cures of disease: it is to the PHYSIOLOGICAL PATHOLOGIST that I would look for the improvement of medicine; and to the combined exertions of many such, for the ultimate achievement of its greatest possible perfection." (P. 162.)

The volume concludes with a description of the "physical signs" of phthisis.

The greater part of this work is occupied by the repetition of doctrines and facts relating to percussion and auscultation, both mediate and immediate, which confessedly do not originate with the author. He has succeeded, however, in giving an air of profundity to his performance, by a philosophical investigation of the "physical signs" of pulmonary diseases. We cannot conceive that the execution of such a task can have been attended with much difficulty, and we candidly confess our fears that it will not materially conduce to our practical information. But a slight knowledge of the general laws of natural philosophy can be required to satisfy the student why percussion of the chest will produce different sounds according to the variation in the structure of the parts contained in it. An equally superficial knowledge of acoustics would make him acquainted with the rationale of the

different phenomena discovered by the application of the stethoscope, although Dr. Williams had never deemed it necessary "to analyse its physical office."

The physical signs of diseases are certainly of quite sufficient importance to merit the careful attention of the practitioner. But we doubt the expediency or advantage of making them the subject of distinct dissertations. They should be studied in connexion with all the other characteristics of morbid action.

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## COLLECTANEA.

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Floriferis ut apes in saltibus omnia libant,  
Omnia nos, itidem, depascimur aurea dicta.

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### PATHOLOGY.

*Case of Rupture of the Stomach produced by Vomiting; with Observations.* By J. N. WEEKES, M.R.C.S. and House Surgeon at St. Bartholomew's Hospital.—G. Andover, æt. thirty-four, had been liable for about two years to paroxysms of pain in the stomach. The pain usually continued for several hours, and generally went off with vomiting; and it returned at uncertain intervals, frequently of many weeks. Between the attacks, the patient enjoyed tolerably good health. About Christmas last, he vomited a large quantity of blood, which rendered him so feeble that he was confined to his bed for five weeks. Since that time his health has been much impaired, and the attacks of pain, followed by vomiting, have been more frequent.

On the evening of April 13th, he was brought to St. Bartholomew's Hospital, where I first saw him. He was then suffering great pain, extending from the epigastric region over the whole abdomen, and accompanied by nausea; there was neither tenderness nor tension of the abdomen; the pulse was frequent, tongue clean. He had shortly before his admission drunk some shrub-and-water, to which he in a great measure attributed these symptoms, and told me he had had a similar attack a week ago, after indulging in spirituous liquors, and that it went off with vomiting. On the following day, the pain had subsided; there had been no vomiting, but he complained of nausea; the abdomen was distended by flatus, and he had frequent eructations; the pulse was weak, tongue natural.

At eleven o'clock P.M. he had a sudden attack of most severe pain. I was called to him about an hour afterwards, and found him groaning with agony at the pit of the stomach; the abdominal muscles were hard and contracted; the belly was neither painful nor tender on pressure; his pulse was small and feeble; he was extremely restless, and his countenance expressive of the greatest suffering. I instantly gave him sixty drops of tincture of opium; and, as he found no relief, they were repeated, but without benefit. He continued to suffer most acute pain for about two hours, when he was suddenly seized with violent vomiting. After this, the pain somewhat abated; there was no return of vomiting; but he sunk rapidly, and died at four o'clock in the morning.

*Examination.*—On opening the abdomen, the stomach was observed to be flaccid and empty, and its contents, which consisted of a large quantity of dark-brown fluid, were effused into the peritoneal cavity, through a ragged opening situated on its anterior surface, and near the œsophageal orifice. The rupture extended from below the lesser arch of the stomach to near its cardiac extremity, and was about four inches in length. The three membranes were not torn equally, the rupture of the peritoneal covering extending an inch farther than that of the muscular or mucous coat. On the posterior surface of the stomach was a laceration, measuring three inches in length; and there were two or three small ones, from an inch to an inch and a half in length, at its great arch. These lacerations extended only through the peritoneal coat of the stomach, the muscular and mucous tunics remaining perfectly whole. The mucous membrane of the stomach was lined with a great deal of dark-coloured secretion, beneath which the membrane itself was of a deep red colour throughout; its texture was softened and partially emphysematous. The stomach in other respects appeared healthy; the liver was pale and softened; the gall-bladder contained a calculus; the structure of the spleen was unusually soft. The other viscera were healthy.

The most remarkable feature in the preceding case is the extensive rupture of the stomach, with so little disease of its coats; and in this respect it forms a striking difference to those cases hitherto related. The stomach presented no thickening nor ulceration at the part which was ruptured; the disease was confined to its mucous tunic, and appeared to be recent inflammation and softening of its texture. It may also be remarked, that the symptoms in this case were not such as generally indicate the existence of organic disease: there were considerable intermissions of the symptoms, the patient had enjoyed tolerably good health, and there was no emaciation.

The only case I have met with of rupture of the coats of the stomach, produced by an act of vomiting, or rather attempting to vomit, is recorded by LALLEMAND, and is described in the 49th volume of the *Dictionnaire des Sciences Médicales*, art. *Rupture*.

The patient had laboured under difficult digestion for five or six months, and had been much relieved by observing a strict regimen. After indulging her appetite to a greater extent than usual, she was attacked with uneasy feelings in the stomach, accompanied by nausea and inclination to vomit. She made violent but ineffectual efforts to discharge the contents of the stomach, and, whilst suffering great agony, experienced intense pain, with a sense of tearing at the lower part of the belly: she uttered several screams, and fell down insensible. She sunk rapidly, and died in the night. On dissection, the cavity of the peritoneum was found full of half-digested food; the anterior and middle part of the stomach was torn obliquely from its small towards its great curvature, to the extent of five inches. The edges of the rupture were thin, irregular, and presented no marks of disease. The three coats of the stomach were not torn to an equal extent, nor exactly in the same direction: the rupture in the peritoneal was larger than the muscular coat, and the mucous membrane was the least extensively lacerated. A mass of scirrhus, an inch and a half in extent, surrounded the pylorus. The other parts of the stomach were perfectly healthy.—*Medico-Chirurg. Transactions*; vol. xiv. part ii.

*Observations on Depositions of Pus and Lymph, occurring in the Lungs and other Viscera, after Injuries of different Parts of the Body.* By THOMAS ROSE, Esq. M.A. Surgeon to St. George's Hospital.—The following is an abstract of Mr. ROSE's remarks upon this interesting subject.

It has long been known to pathologists and surgeons that abscesses occasionally occur in some of the principal viscera of the thorax and abdomen, in consequence of injuries of the head; and that, from the same cause, purulent effusions sometimes take place into the cavities of the pleura and peritoneum. This fact did not escape the notice of MORGAGNI,\* who disproves, by his dissections, and by those of VASSALVA, the notion, that had been entertained by MARCHETTI, of the matter descending from the wound in the head into the cavity of the thorax. DESAULT considered abscess of the liver to be one of the most common effects of injuries of the head. In speaking of the erysipelas which attends wounds of the scalp, he observes, "Qu'il est rare que les symptomes deviennent violens, sans que le foie ne s'affecte, ou même qu'un dépôt ne s'y forme." RICHERAND endeavours to prove that these abscesses must depend upon some injury which the liver had sustained at the time of the accident. They occur, however, under circumstances where such a supposition cannot possibly be entertained. It is curious that Mr. POTT is entirely silent upon this subject. Granting that abscesses of the liver, under such circumstances, may not be near so common as Desault would lead us to suppose, yet their occurrence in that as well as in other viscera, after injuries of the head, appears to Mr. Rose to have been too little considered by English surgeons. It is not after injuries of the head alone that such abscesses are formed. During the Peninsular war, Mr. R. met with several instances, in the lungs particularly, after amputations and other wounds of the extremities. It appears that LARREY, who met with a case of this kind, at first attributed the fatal result, and disease of the viscera, to the effects of an Egyptian climate, or to fatigue and other causes. He did not imagine that they were connected with the previous wound or operation. At a subsequent period, he seems to have been aware of the true nature of such cases.

"I have seen," says Mr. Rose, "repeated instances of the disease in the lungs, in the liver, and in the spleen, and after various accidents. I have not been able to discover any peculiarity of constitution which could be regarded as predisposing to it. Many of the patients were young and healthy individuals, who, until the time when they met with the accidents, had never been affected with disease. Some of them were treated on the strictest antiphlogistic plan throughout, in consequence of the nature of the accident they had experienced. In others, (in compound fractures, for instance,) as soon as the first inflammation had subsided, means were used for supporting the strength of the system. No difference as to the formation of the internal abscesses could be observed. In all the cases which I have seen, these abscesses took place at some period between the end of the second and that of the fifth week after the accident which gave rise to them.

"The theories which ascribe their formation to injury done to the liver itself at the time of the accident, to obstruction to the entrance of the blood into the right auricle through the vena cava inferior, or to a direct communication for the transmission of matter from the head to the cavity of the

\* On the Seats and Causes of Diseases, translated by Dr. ALEXANDER, vol. iii. p. 100 et seq. London, 1769.

thorax, are all obviously absurd. That of Desault, which attributes them to the disturbance of the nervous system, resulting from the injury, is probably the only explanation which can be given of their cause. They are to be classed amongst the effects of constitutional irritation arising from local injury, and are certainly striking illustrations of the irregular action in the vascular system to which that irritation may give rise. The attention of the members of our profession has lately been directed to this most important subject by the very valuable work of the president of this society,\* and it is to the principles which he has so ably illustrated that I should look for an explanation of the phenomena which I am now attempting to describe."

Although constitutional disturbance, evidently referrible to an unfavorable state of the wound, has, in all the cases which Mr. Rose has seen, preceded the formation of these visceral diseases, yet a favorable change has often taken place in the wound before the symptoms of the internal abscess have begun to manifest themselves; and we are able sometimes to detect the existence of the latter, by the presence of rigors and other symptoms of suppurative fever, at a time when the wound itself is disposed to heal.

"The examination after death of those who have been affected with this disease, presents appearances which are well worthy of notice, though it is not easy to convey a correct idea of them in words. The disease consists, apparently, of depositions in the cellular texture of the affected organ, partly of a white or yellowish coloured lymph, and partly of pus. These depositions vary in size from beyond the bulk of the largest walnut to something less than a common pea. Where the lymph is most abundant, they may be described as a soft white tubercle of irregular shape, not contained in a cyst, but imbedded in the cellular substance of the part, and gradually blending with its natural structure. When pressed, some pus exudes from them. Where the pus collects in greater quantity, it is lodged in an irregular cavity, probably in the middle of some of the tubercles, and the walls of the abscess are formed of flakes of lymph. The number of these tubercles and abscesses vary in different instances, there being sometimes only one or two, and sometimes the whole viscus being filled with them. In the lungs they are chiefly formed in the parts adjacent to the pleura pulmonalis, and there is often at the same time an effusion into the cavity of that membrane of a sero-purulent fluid mixed with lymph. In the liver and spleen they are dispersed throughout the substance, sometimes shewing themselves in one or more yellowish patches, not elevated, on the convex surface of the great lobe of the former viscus, and at other times lodged in its substance. The parts adjacent to them shew evident marks of increased vascularity."

Upon the treatment of such cases, Mr. Rose has little to suggest. Our efforts must be directed, 1st, to subdue any excess of arterial action; 2dly, to quiet the disturbed state of the nervous system. When the abscesses are once formed, we shall find the truth of the observation of Desault, that they are almost invariably fatal. Four cases of the disease are given, arising from injuries to different parts of the body.

CASE I.—Abscesses in the lungs, with extravasations of lymph and pus into the cavities of the pleura, after wound and amputation of the arm. The patient died on the seventh day after the operation, which was rendered neces-

\* Vide an Inquiry concerning Constitutional Irritation, by BENJAMIN TRAVERS, Esq. F.R.S. London, 1826.

sary by a wound he received at the storming of St. Sebastian's. In the cavity of the thorax, on the left side, more than a pint of sero-purulent fluid was found effused, mixed with loose flakes of coagulable lymph. There were several abscesses in the lungs. Abdominal viscera healthy.

In CASE II. abscesses were found in the lungs, liver, and spleen, after compound fracture of the leg.

CASE III. is especially interesting. We give it at length.

*"Abscesses in the Lungs, Liver, and Articulation of Clavicle and Sternum, with Effusion into the Thbrax, after a Bruise and Wound of the Foot, and a fractured Fibula.*—George Stacey, eighteen years of age, and apparently of a healthy constitution, was admitted under my care into St. George's Hospital, on the 17th of July, 1827, in consequence of an accident from a cart-wheel having passed over the outside of his left foot. There was a small wound under the little toe, made apparently by some sharp substance, which had penetrated under the first phalanx, about an inch into the sole of his foot. Considerable ecchymosis had taken place over all his instep and foot, and there was a simple fracture of his left fibula two inches above the ankle. Leeches, cold lotions, and aperient medicines were ordered, and the limb was kept quiet, and supported on a pillow. The leeches were repeated several times.

On the 23d, he had shiverings, after a restless night; and these were followed by diffused cellular inflammation over every part of the foot, and by erysipelas extending up the leg and thigh, with enlarged glands in the groin. The integuments in different parts of the foot were divided, to set the inflamed parts at liberty; and, on free openings being obtained for matter which had formed under the fascia plantaris, the febrile disturbance began to subside.

"On the 4th of August, he was reported convalescent, and at his earnest request was ordered some meat for his dinner on the following day.

"On the 5th, he had a severe rigor, which lasted for more than an hour.—A purgative medicine was ordered, and he was again put on light diet; and it is to be observed that the rigor came on before he had taken the meat.

"On the 7th, the rigor returned at the same hour as on the 5th, and lasted about the same time. The limb continued perfectly quiet, all the wounds were healing, and no cause could be discerned for these febrile attacks. He had never had ague, but stated that where he had been working that disease prevailed.—He was directed to take two grains of the sulphate of quinine every four hours.

"The rigor returned again on the 8th, followed by much heat and a very quick pulse, and continued afterwards to recur at irregular intervals, being generally succeeded by profuse sweats.

"On the 10th, it was observed that he had slight ptosis of the upper eyelid of the right eye; his pulse was quick, nearly 150; his tongue dry; his countenance unfavorable, and with a yellowish tinge. There was no appearance of matter forming in any part of the leg, and he could bear pressure over the abdomen. In the evening, some degree of emphysema and a little effusion of fluid were detected at the articulation of the right clavicle with the sternum. He had met with no accident in the part to account for this.

"On the evening of the 11th he died, being the twenty-sixth day after the accident.

"The body was examined on the following day. In the head, the arach-

noid appeared more opaque than natural, and there was some lymph effused on the under surface of the anterior lobes of the cerebrum, and round the junction of the optic nerves; matter was found effused into the cellular membrane over the sternal extremity of the right clavicle, and into the synovial cavities on each side of the inter-articular cartilage between that bone and the sternum.

"The pleura on both sides of the thorax was very vascular, and distended with a considerable quantity of a sero-purulent fluid, mixed with loose flakes of lymph. This was more abundant on the left than on the right side of the chest.

"The lungs on each side contained numerous small abscesses and soft tubercular masses, principally adjoining the surface of the pleura. These varied in size from that of a hazel-nut to less than that of a small pea; and in the middle of some of the tubercles there was an irregular cavity filled with pus. One small abscess was found in the substance of the great lobe of the liver, at some distance from its surface. Drawings exhibiting the appearances in the lungs and liver of this man were made by an excellent artist for my friend Dr. SEYMOUR, who has been so obliging as to favor me with them to lay before the Society; and engravings from them are annexed to this volume."

In further illustration of the same subject, other cases are related, which were communicated by Mr. LAWRENCE.

Mr. GUTHRIE has made many good practical observations upon this subject, in his *Treatise on Gun-shot Wounds*.\*—*Ibid.* part i.

*Cases of Tumors in the Abdomen arising from Organic Disease of the Stomach, with Remarks.* By EDWARD J. SEYMOUR, M.D. Fellow of the Royal College of Physicians, &c. &c.—From this very interesting communication we extract the following case:

Mr. C., æt. fifty-nine, a gentleman who had always enjoyed good health, and was remarkably temperate in his habits, but much occupied by anxious professional business, consulted me in the month of November 1825, being affected with pain in the region of the bladder, particularly felt after voiding his urine, which was high coloured and deposited freely uric acid.—The warm bath, and the use of soda and opium, shortly relieved these complaints; a visit to the seaside, and the moderate use of tonics, completely restored him.

About November 1826, he mentioned to me that he was occasionally troubled with water-brash, which he described as a small portion of tasteless fluid rising occasionally into his mouth, unattended by pain or any uneasiness whatever. His appetite was extremely good, sleep undisturbed; he had no pain in any part of his body. His pulse was not strong, but regular, and of natural frequency, and he described himself to be in good health.—He was recommended twenty minims of Liq. Potassæ in lime-water twice in the day; but the inconvenience appeared to have been so slight, that he did not comply with the prescription.

On the 13th March, 1827, while visiting another patient in the family, I observed that Mr. C.'s countenance and manner betrayed considerable indis-

\* Third edition, p. 257 et seq.



position, and I inquired if he were suffering from return of pain in the bladder. He replied, he thought he had taken cold, and that he was much harassed by business. He said he felt as if he required opening medicine.—I ordered him an aperient, and desired he would lie in bed in the morning that I might examine his abdomen, as on pressing him through his dress there appeared some tenderness present.

14th.—The patient being in bed, the symptoms were as follow: Bowels freely open from the medicines; dejections loose, but of good colour; pulse 110, extremely weak; urine very turbid; tongue red and shining; appetite good; great sensation of debility; with an exsanguine appearance of the countenance, the less remarkable as the patient had always been unusually pale.

About midway between the umbilicus and superior anterior spinous process of the left ilium, a tumor was observed, of the size of a large orange, extremely hard, extending over about half an inch to the right side of the umbilicus, and an inch below it. This tumor was adherent to the integuments, was rather moveable, and there was considerable tenderness on pressure. Notwithstanding the size of the tumor, its tenderness, and its prominent figure, the patient, until my examination, was totally ignorant of its existence. The apparently rapid growth of the tumor, its hardness and irregularity, combined with the bloodless appearance of the patient, and the great and sudden loss of strength experienced, induced me to believe that the disease was of a malignant nature.—A dozen leeches were ordered to the part, and a consultation took place in the evening with Dr. Nevinson. Dr. Nevinson was likewise of opinion that the disease was of a malignant kind, but no decision could be formed as to which of the viscera it affected particularly.

Hirudin. xij. tumori.—Capiat Pil. Sapon. c. Opio gr. iij. h. s.—R. Mist. Camph. 3x.; Sp. Æther. Nitr. 3ss.; Confect. Arom. ʒj. M. fiat haustus quartis horis sum.—Light nourishment.

15th.—A consultation took place with Mr. Brodie, who agreed in the opinion that the disease was fungous hæmatodes.

The leeches were ordered to be repeated. Evaporating lotions to the tumor. The internal medicine to be repeated.

On the 18th, the tumor having increased, a consultation took place with Mr. Brodie and Sir A. Cooper. The latter gentleman was of opinion that the great intestine on the left side adhered to the parietes of the abdomen, that the inner coat had ulcerated, and a tumor was formed, whose contents consisted of gas, ill-conditioned matter, and feces.

Ponitices and fomentations ordered.—The soap and opium pill repeated at bedtime.—R. Infus. Gentian. C. 3x.; Infus. Rhei ʒij.; Pulv. Ipec. c. Opio gr. iij.; Subcarbon. Sodæ exsicc. gr. v. M. fiat haustus t. diesum.

23d.—Some fluctuation being perceived in the tumor, an opening was made to the left, a little above the umbilicus, with a lancet: about two ounces of fetid sanious pus escaped from the orifice. Some hemorrhage occurring, the pulse in the evening became extremely small and feeble; tongue red, with a brown centre; countenance much sunk; bowels purged.

R. Pulv. Cret. C. 3ss.; Confect. Arom. ʒj.; T. Opii m. v.; Misturæ Camphoræ 3x. M. fiat haustus quartis horis sumend.—Vini. rubri ʒij. ter in die.

26th.—The opening discharged freely; pulse 100; strength much improved; aphthæ in the mouth.

R. Infus. Cuspariæ 3 x.; Confect. Arom. ʒj.; Pulv. Cretæ C. ʒj. M. fiat haustus ter die sumend.

The relief experienced by letting out the confined matter was of very short duration. The tumor enlarged as the cavity of the abscess filled up, and the condition of the patient on the 17th of April was as follows: The tumor occupies the whole of the umbilical region, being about six inches in breadth, and four in length. No pain whatever is experienced on pressure, or at any period. The cavity of the abscess filled up about one half. Bowels slightly relaxed. No vomiting or nausea. Tongue clean, less red and shining. Appetite good. Sleeps well. Pulse 100, weak.

R. Infus. Cascarillæ 3 x.; Canell. Alb. in Pulv. 3 ss.; T. Opii m. iij.; Syrupi ʒss. M. fiat haustus ter in die sum.

It now appeared expedient to endeavour, by all the means in our power, to check the growth of the tumor; and in such a case the various remedies which have been insisted on by authors for promoting the dispersion or absorption of morbid growths were fairly to be tried, however small the hopes of success which resulted from their employment.

Several blisters were applied in succession over the tumor, without affording any advantage. The tumor appeared inert, producing no pain on pressure, or during the whole process of digestion, which was uniformly to all appearance healthy, one natural evacuation being voided in the twenty-four hours; and when (which was a very rare occurrence) this was deficient, a small dose of castor-oil relieved the difficulty. The only bad symptom was the sense of extreme debility, and occasionally slight syncope.

On the 20th of May, a drachm of weak mercurial ointment was ordered to be rubbed in over the tumor daily, and three grains of bluepill given at bedtime. The cascarilla and canella, from which the patient expressed himself to derive relief, was continued. This course was persevered in for nearly three weeks, and given up without appearing to have in any way contributed to the diminution of the tumor, or the amendment of the patient's general health.

The action of iodine is at present little understood; but that it occasionally exercises very extraordinary power in the dispersion of morbid growths, is now generally admitted, at the same time that, in the present state of our knowledge, its apparent want of uniform success, and the terrible influence it exercises over the nervous system, even some weeks after its use has been discontinued, require great caution in its administration.

Half a drachm of the ointment of hydriodate of potass was rubbed in every night and morning, and five drops of the tincture given twice in the day for more than a fortnight, when the increased sense of fainting, and diminution of the patient's strength, obliged its discontinuance.

The beneficial effect occasionally produced by the internal use of the caustic alkali, especially in steatomatous tumors, suggested the propriety of employing this remedy. Twenty drops of the Liq. Potassæ were ordered to be taken thrice daily, in a little barley-water, this quantity being gradually increased to twenty-five minims five times in the twenty-four hours, which was borne without the slightest uneasiness. During three weeks that the use of this remedy was continued, a sensible amendment was perceived. Strength increased; the skin became of a healthier colour, and the tumor

certainly was somewhat diminished. In consequence of this amended state, the patient left town for his seat in the country, in the middle of July. On the 1st of August he returned to London, having perceived an increase in the tumor during the preceding two days, and having experienced a return of the rising of tasteless fluid into his mouth, a symptom which had wholly left him for several months.

My attention having in the mean time been called to the case of Row, which I first detailed to the Society, I was satisfied that the malignant growth was in the stomach itself, and accordingly informed the patient's friends. This opinion was confirmed in consultation by Mr. Brodie and Dr. Chambers. After the patient returned to London, the *Extr. Conii* and the *Liquor Arsenicalis* were employed in full doses, but without any perceptibly good effect. The patient continued to decline; his hands and feet were œdematous; and his strength became so greatly impaired that he required the support of considerable quantity of stimulants, in order to maintain life and warmth.

After growing weaker and weaker through the month of September, he expired on the 2d of October without pain, having experienced a feeling of complete exhaustion, and presented an appearance of the utmost emaciation for several days previously.

The most singular circumstance attending this case, was the perfect manner in which digestion was performed during the progress of so extensive a disease of the stomach. The patient's diet consisted of broth, arrow-root, plain animal food, and white fish; and, as the disease advanced, he was permitted to drink weak brandy-and-water with his dinner, which added greatly to his comfort by counteracting the extreme sensation of debility. At no period of his disease did he experience any pain after taking food; at no period was his food returned by vomiting. The only circumstance which could draw the attention of the physician to disease of the stomach was the water-brash, but this occurred rarely in very small quantity, and was attended with no pain. The appetite continued natural until two days before death.

The body was opened twenty-seven hours after death by Mr. Brodie, assisted by Mr. Caesar Hawkins. On the external surface of the body several spots of purpura were perceived, and a tumor was easily felt through the parietes of the abdomen, with an opening in its centre, a little above and to the left side of the umbilicus, discharging some dark purulent fluid. The cavity of the abdomen contained about three quarts of water; on the removal of which, the tumor was found to be formed by the stomach, adhering extensively to the parietes, to which the transverse part of the colon and the omentum were also joined. The stomach was opened on the posterior part, and the cardiac portion and duodenum were found to be quite healthy, the pyloric half alone being the seat of disease. It appeared to consist of a thickening of the coats of this part of the stomach, in some parts above an inch in thickness, with an irregular tumor growing from its whole circumference, of the nature of fungous hæmatodes. The whole interior surface was ulcerated, and several portions of the tumor projected into the cavity of the stomach. The tumor was soft, and highly vascular in the inner part, and gradually became firmer and whiter towards the peritoneal surface, whence several white bands ran in an irregular manner towards the interior of the tumor. The anterior part of the stomach was the thickest, particularly where it adhered to the muscles of the abdomen; and in it several abscesses were discovered, one of the largest of which was the cavity in which the opening

on the surface of the abdomen terminated. The œsophagus, near its junction with the stomach, contained a small cyst of fluid, resembling an hydatid in appearance, and of the size of a filbert. The liver was rather darker than usual, but otherwise healthy, except that in the left lobe several tubercles were observed of the size of a pea, of a white colour, and of the consistence of soft cartilage. All the other viscera appeared sound.—*Ibid.*

Several cases have recently fallen under Dr. Seymour's observation, in which tumors in the abdomen, of considerable size, were found to arise from organic disease situated in the stomach. In two of them, the symptoms which have been considered to characterise organic disease of this viscus were altogether absent.

### PRACTICAL MEDICINE.

*Case of Anasarca, cured by Tartar-Emetic Ointment.*—The subject of this case was an old man, 65 years of age, of a feeble and even cachectic complexion, much addicted to drinking spirits, and obliged to work hard in the open air, and overwhelmed with grief and deprivations. After having experienced wandering rheumatic pains, for which he was treated with sudorific drinks, he was suddenly seized with general anasarca. He was very soon scarcely able to walk; his breathing became short and laborious; the weakness increased, and a slight febrile action was evident every night. The quantity of urine varied: it was sometimes abundant, and at others less than natural. The skin was always dry. The internal remedies used to excite the activity of the skin, such as the tartar emetic, acetate of ammonia, elder, arnica, &c., being unsuccessful, means which were particularly indicated by the rheumatic affection which preceded the anasarca, recourse was had to friction with tartar emetic ointment. The stomach was first rubbed, then the inferior extremities, until those parts were covered with pustules; and this treatment was continued, care being taken to keep up the excitement of the integuments by renewed frictions, in proportion as the effects of the former disappeared. At the same time tonics and diuretics were administered internally. The secretion of urine was now abundant, the patient had copious stools, and free perspirations. The quantity of urine was soon greater than that of the liquid drank.

The œdematous swelling gradually diminished from this time, first in the legs, then in the stomach, and at the end of a month all the affected parts were restored to their natural size. The pustules produced by the tartar emetic frictions discharged an enormous quantity of purulent matter.

To conclude the treatment, pills were prescribed of aloes, squilla, digitalis, and cream of tartar. After a short use of them, the patient perfectly recovered, and has since remained in good health.—*GRAEFE and WALTHER'S Journal.*

*Case of Salivation, from the external Application of Tartar Emetic.* By R. EGLESFELD GRIFFITH, M.D.—J. M., æt. fifty, was treated for hydrothorax and œdematous swellings of the lower extremities, by active depletion, and purging with crem. tart. and jalap: no mercurial preparation was used. He was also directed to use an external application of tart. ant. ointment to his breast. This he persevered in till a large crop of pustules were produced. Shortly after their appearance his gums became sore, and a violent salivation

ensued, which lasted for nearly two weeks. He used about 3jss. of the ointment: it was made with ʒij. of tart. ant. and ʒj. axung. He is now convalescent, his disease having gradually disappeared under the salivation.

Dr. JACKSON has also met with an instance in which salivation was produced by the external application of tartar emetic ointment.—*American Journal of Medical Sciences.*

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*Eruptive Disease produced by the internal use of the Balsam Copaiba.* (Communicated to the Kappa Lambda Society, by THOMAS HEWSON, M.D. &c.)—A lady had laboured under leucorrhœa for eleven years. Many physicians on the continent of Europe had been consulted, and many remedies used in vain. Equal parts of copaiba balsam and spirits of nitrous æther were given, in doses of half a drachm of the former night and morning. After having continued this medicine about a week, the patient was attacked with pains in the joints and uneasiness at the stomach, which were soon followed by itching and tingling of the skin. The next morning, she was greatly disfigured; all those parts of her body which were exposed being covered with an efflorescence of a damask-red colour. The spots, taken singly, were about three-eighths of an inch in diameter, with a slight elevation in the centre. The eyelids were swollen, and there was great swelling of the face. There was likewise considerable intumescence of the hands and arms. In the course of a few days, by omitting the copaiba, and by gentle purging, the eruption vanished.

This subject has been particularly referred to by Dr. ARMSTRONG. Such cases are not uncommon, but they are rarely so severe as that above mentioned.

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#### SURGERY.

*Case of Extirpation of the Uterus.* By Dr. BLUNDELL.—Mrs. A. B., æt. fifty, of grey eyes, tranquil disposition, broad in her make, and disposed to obesity, was seized with offensive discharge from the vagina, soon followed by eruptions of blood in large quantity; so that, according to her own report, frequent faintings were produced, and the blood occasionally sank through a bed about twice as thick as a sofa cushion, collecting on the floor; and day after day, for months together, with little intermission, one or two pints of blood were discharged.

Although Mrs. A. B., in her general conversation, is by no means prone to hyperbole, it seems evident that she must have greatly over-rated the quantity of these daily floodings. Certain, however, it is, from her repeated and considerate declarations, that very large quantities of blood were lost during a period of many months; and though, with the exception of some small œdema of the legs, there were no signs of general dropsy, the paleness, coldness, and weakness, and the frequent attacks of faintness, or complete delirium, shewed pretty clearly that much vascular inanition had been produced. In other particulars, the patient's condition was not altogether discouraging; for the bowels were regular, and the appetite was occasionally good; and the appearance, though cachectic, and perfectly similar to that of other women perishing under malignant ulceration of the uterus, was not such as to indicate a constitution wholly unfit for surgical operation.

The woman having been under the care of three or four different practitioners before I saw her, I deemed it proper to examine immediately with

great attention; when I found that the womb was moveable, and about as large as a goose's egg; that its mouth was broad, open, and of cartilaginous hardness; that it manifested the usual marks of malignant disorganization, in which also about one-fourth of the contiguous vagina was involved; and, further, that on the surface of the diseased mass was formed an ulcer, about as broad as a shilling. The adjacent structures appeared to be healthy enough: the bladder and rectum were sound; the inguinal glands were not enlarged, whence it was presumed that the lumbrics were perhaps healthy; the ovaries could not be felt to exceed their ordinary bulk; and there evidently was no tangible enlargement of the liver, spleen, kidneys, or omentum, all of which were examined with the nicest care. The breathing was easy; the pulse, various in its frequency, ranged between 115 and 120 in the minute; and the patient, though certainly very much debilitated, had sufficient remains of strength to walk to my house, (the distance of a furlong,) though not without considerable difficulty. To be short, it seemed clear at this time that the case was ulcerated carcinoma of the uterus, as it is called, and that extirpation was the only remaining remedy.

The bowels having been cleared, and the patient being resolved to submit to the operation, on the 19th of February, 1828, I determined to remove the diseased parts without further delay. For this purpose, having placed the woman in the obstetric position usual in this country, (on the left side, I mean,) close upon the edge of the bed, with the loins posteriorly, the shoulders advanced, the knees and bosom mutually approximated, and the abdomen directed a little downwards towards the bed, I began the operation.

*First stage of the operation.*—I commenced by passing the index and second finger of the left hand to the line of union between the indurated and healthy portions of the vagina; the finger being converted into a cutting instrument, (varying with the exigencies of the operation,) by means of a moveable knife, which requires a word or two of description. The blade of this knife, not unlike that of a dissecting scalpel, was mounted upon a long slender shank, which, including its large handle, was about eleven inches in length; and with this stem the blade was united, so that its flat, or plane, formed with the stem an angle of fifteen or twenty degrees. The first and second fingers of the left hand then being in the back of the vagina, contiguous to the diseased mass, (as before observed,) by taking the stem-knife in my right hand, I could at pleasure lay the flat of the blade upon the front of these fingers, and urge the point of the instrument a little beyond the tip. The apex of the forefinger being in this manner converted into a cutting point, by little and little I gradually worked my way through the back of the vagina, toward the front of the rectum, so as to enter the recto-vaginal portion of the peritoneal cavity, frequently withdrawing the stem-scalpel, so as to place the point within the tip of the finger, and then making examination with great nicety, in order to ascertain whether the vagina was completely perforated, minute care being necessary in this part of the operation to avoid wounding the front of the intestine.

*Second stage of the operation.*—A small aperture having been formed in this manner in the back of the vagina, through this opening the first joint of the forefinger was passed, so as to enlarge it a little by dilatation and slight laceration, (safer than incision.) This done, and a cutting edge being communicated to the finger, by placing the plane of the blade in such a manner that its incisory edge lay slightly advanced beyond the side of the finger now

lying in the aperture, after drawing the point of the instrument within the tip of the finger, which operated as a guard, I proceeded to make an incision through the vagina transversely,—that is, in a direction from hip to hip; for this purpose carrying the finger with its cutting edge, from the opening in the vagina already made, to the root of the broad ligament on the left side, so as to make one large aperture. I then took a second stem-scalpel, formed on the same model as the preceding, with this difference, that the incisory edge lay on the other side of the blade; and laying this instrument on the forefinger as before,—in such a manner, however, that the cutting edge lay forth on the other side of the finger, (to the right of the pelvis, I mean,)—I carried the finger thus armed from the middle of the vagina, where the former incision commenced, to the root of the broad ligament on the right side; so that, at the end of this, which was the second step of the operation, the diseased and healthy portions of the vagina behind became completely detached from each other by a transverse incision, which stretched across the vagina, between the roots of the broad ligaments immediately below the diseased parts. At this time the intestines could be felt hanging about the tips of the fingers; but the blade of the scalpel lying on the finger, in which it was as it were imbedded, the risk of a wound, whether by point or edge, was completely prevented.

*Third stage of the operation.*—The back of the vagina, then, having been divided in this manner, I urged the whole of the left hand, not of large size, into the vaginal cavity, and the more easily because the woman had borne children; afterwards passing the first and second fingers through the transverse opening along the back of the uterus,—this viscus lying, as usual, near the brim of the pelvis, with its mouth backward, its fundus forward, and a little elevated just above the symphysis pubis. This manœuvre premised, under full protection of these fingers, now lying between the womb and the intestine, taking a double hook, mounted on a stem eleven inches long, I passed it into the abdominal cavity, through the transverse aperture, along the surface of the fingers already mentioned; and laying it in front of them, near their tips, I converted these fingers into a sort of sentient tenaculum, which, with little pain to the patient, I pushed into the back of the womb, near the fundus, and then drawing the womb downward and backward, towards the point of the os coccygis, as I carried the fingers upward and forward, I succeeded ultimately in placing the tips over the fundus in the manner of a blunt hook; after which, by a movement of retroversion, the womb was very speedily brought downwards and backwards into the palm of the left hand, then lodging in the vagina, where, at this part of the operation, the diseased mass might be seen distinctly enough lying just within the genital fissure.

*Fourth stage of the operation.*—The process of removal being brought to this point, the diseased structure, still in the palm of my hand, remained in connexion with the sides of the pelvis, by means of the fallopian tubes and broad ligaments, and with the bladder by means of the peritoneum, the front of the vagina, and interposed cellular web,—parts which were easily divided, so as to liberate the mass to be removed. The broad ligaments were cut through, close upon the sides of the uterus; and, in dividing the vagina, great care was taken to keep clear of the neck of the bladder and the ureters. This division of these attachments, and the removal of the diseased mass, constituted the fourth step of the operation. Some bits of indurated vagina, altogether not larger than the common bean, were left in the pelvis, to be

removed at some future period, should symptoms require. This fact is worth recording.

To this circumstantial account of the operation may be added a few remarks. The intestines did not protrude. About an ounce of blood was lost when the back of the vagina was divided, three or four more ounces following when the vagina was cut in front. Ligatures, tenacula, and forceps, were in readiness to secure the vessels, but these were not required.

The intestines were felt at one time only, namely, when two fingers were lying out through the opening in the vagina behind. Of course, some pain was felt when the first incisions were making, and when, as in ordinary obstetric operations, the hand was urged into the vagina; but the principal distress was occasioned by drawing down the uterus, when the retroversion was accomplished, and the ligaments were put upon the stretch.

The pains and complaints scarcely exceeded those observed in instrumental deliveries. The patient lay in the ordinary obstetric position, and required no restraint. The insertion of the hook into the back of the uterus did not occasion much suffering. The operation, from first to last, occupied about an hour; but much of this time was spent in reposing, and considering what might best be done. With better instruments, and greater activity, the whole operation might most probably be completed in five minutes. In obstetrics, however, celerity is considered to be in itself a secondary merit, and the operation was conducted on obstetric principles. The general range of the pulse was between 120 and 130, a frequency common in delivery by instruments.

When the last gush of blood was observed, the pulse became imperceptible in the wrist; returning, however, in the course of ten or fifteen minutes. A few ounces of spirit were administered to the patient as the operation proceeded. Throughout the process the forefinger of the left hand was the principal instrument, and the scalpels and hooks were employed merely as the means of arming the finger for its various operations.

The professional friends who favored me with their presence were, Dr. Elliotson, Mr. Callaway, Mr. B. Cooper, Mr. Key, and Mr. Morgan. An accident deprived me of the presence and assistance of my friend Dr. Roots.

The operation was not undertaken at a venture, but in conformity with certain principles laid down in two papers read before the Medico-Chirurgical Society; the first of them in the year 1819, and the last in the year 1823. The latter, which was not published, contains the proposals for other abdominal operations. The fundamental principles of these operations, as there stated, are rested upon numerous observations made upon the human body, and a sufficient number of experiments upon brutes. Should the case here narrated come before the eyes of the public, I hope it may tend to diminish any unreasonable prejudices against experiments and experimenters. The feeling is respectable, but by the designing it may be misdirected. In Lisfranc's operation I conceive there must be some misapprehension. I think I run no risk in saying that by his method of procedure, as understood here, what the English accoucheur means by cancer of the uterus must frequently be irremovable.

It is now five months since the parts were extirpated, and the patient is fat and well, and designs to return to her husband. The interception of the access to the ovaries is a complete security against extra-uterine impregnation. The head of the vagina is closed by the bladder, which lies upon it. The recovery was easy enough, but, as the details may perhaps be deemed desirable,



they shall be communicated at an early opportunity. The patient had been ill for eight or nine months before the operation was performed.—*Medical Gazette.*

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*On the Treatment of Ulcers by Plates of Lead.* By Dr. A. MENON.—In all wounds, the simpler the treatment the better. This principle of surgery is now so generally recognised, that there remain few practitioners who have not laid aside all-multiform and compound applications to sores, and which only retard their cure. Quiet, cleanliness, dressings with lint, either dry or spread with salve, form the basis of treatment now followed, unless in very particular cases. M. REVEILLE PARISE has suggested a still simpler mode of treatment. In a Memoir read some time since at the Academie de Medicine, he states that he had derived the most advantageous results from plates of lead applied to wounds. GUY DE CHAULIAC and AMBROSE PARÉ had before employed, in the cure of ulcers, plates of lead rubbed with mercury; but this means, neglected by men of science, passed into the hands of the vulgar, where it is still occasionally met with. The following fact will show this.

A military invalid had applied to his ulcers a plate of lead: surprised to observe that they regarded his being dressed by this means as a new fact, he said that, twenty years before, having received a wound on the field of battle, he cured himself by applying a leaden bullet that he beat out with a flint. He said that this remedy was known to many soldiers, who always tried it when their wounds were not sufficiently bad to go into hospital.

M. PARISE, however, has not the less merit in restoring to science a mode of cure which may be very useful. Recent wounds are almost the only ones in which he has tried his plan. His success induced M. le Baron YVANS to repeat the trials; and the great number of people affected with ulcers in the establishment at the head of which he is, gave him great facility to make the experiment.

M. MENON has not seen a sufficient number of recent wounds tried with this means, to speak of its effect; but more than sixty cases of ulcers successfully treated in this way convince him that the plates of lead form the best topical application to ulcers. Among these cases, some have been of thirty years' standing. When they were not completely cured, the ulcer quickly put on a new aspect: its edges thickened, diminished in size, and soon assumed a more satisfactory appearance. It was remarked that several ulcers, which had never been able to be cicatrised, were so by this new method; and that those in which it failed were never cured by any other means: and we may conclude that these last were incurable, and that nature, more powerful than art, resisted the suppression of an evacuation that custom had rendered necessary. At first this method was confined to simple ulcers: emboldened by success, M. Yvans tried it on ulcers evidently in an inflammatory state, and which before he would have treated by topical emollients. He was astonished to see that the lead not only did not increase the pain, but the inflammatory symptoms diminished, and shortly the ulcer was in a healthy state. In fact, many cases prove that this substance acts with a promptitude quite surprising in bringing ulcers foul at bottom, and having all those appearances that are implied by the name "*ulceres sordides*," back to a healthy state. Three or four days has in general been sufficient, and soon after cicatrization has generally begun to take place.

The fact being established that lead, in the form of plates, applied to

wounds is beneficial, it would be interesting to know how it acts. Does this lead enjoy any specific property? Can it have within it something peculiar which, changing the kind of irritation of the ulcerated surface, disposes it to heal? Is there any chemical action takes place, from which might result a compound analogous to the acetate of lead which GOULARD and others have so much praised? M. Menon thinks not; for it appears that plates of brass, or gold, or silver, have nearly the same results. Lead is, however, preferable, both being cheaper and also more flexible, so that it is modelled more exactly to the surface. M. Menon thinks it acts mechanically, exercising slight compression on the borders of the wound, and keeping in contact with it the pus which many physiologists think necessary to the formation of a cicatrix.

This mode of dressing consists in the simple application of a thin plate of lead on the ulcer, and keeping it in its place by a bandage. When it is wished to be removed, the surface of the ulcer and the plate are both wiped clean, and again brought into contact. Nothing can be simpler; and it is a great advantage, not exposing the surface of the sore too long to the action of the air. If granulations shoot up too fast, touch them with lunar caustic, or powder them with calcined alum.—*Archives generales de Medicine.*

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*On Sanguineous Tumors of an equivocal character, which appear to be Aneurisms of the Arteries of Bones.* By M. BRESCHET.—These M. Breschet thinks have been confounded by writers with osteo sarcoma, fungous hæmatodes, inflammation of the veins of bones, and of the bones themselves, &c. The disease generally arises spontaneously, sometimes follows blows or other external violence, occasionally succeeds gouty or rheumatic affections of the knee. It is usually situated at the posterior part of the leg, below the knee, and affects the tibia or fibula, or both; sometimes the disease occupies the metatarsal bones of the foot. The tumor is painful, and the veins of the whole limb swollen, distended, and varicose. There is deep-seated pulsation, synchronous with that of the arteries: this pulsation ceases on the artery, between the heart and tumor, being compressed. On pressing with the finger upon some parts of the tumor, a sound resembling the breaking of an egg may be heard. On dissection, the cellular tissue of the bones has always been found in great part or wholly destroyed; the cavity of the bone enlarged, filled with coagulated blood disposed in concentric layers, as in old aneurismal tumors, and these clots form one or several foci, each communicating with an arterial branch. The external table of the bone still remains, but thinner than natural; destroyed in several of its parts, and offering but feeble resistance, in comparison with a cartilaginous surface, which yields to the finger, but quickly recovers itself. Sometimes the bone may be crushed easily, like an egg-shell. The periosteum and the aponeurotic expansion are generally thicker and firmer than in the healthy state, and sometimes they pass into a fibro-cartilaginous state. The articulation near the seat of the disease has always been found healthy, even when it was only separated from the seat of the malady by an expansion of cartilage. Injection has proved that the principal vessels of the limb are healthy through their whole extent: this is not the case, however, with the small arteries which supply the substance of the bone: they are increased in size, and pass from the centre of the bone into the aneurismal sac by several orifices.

M. Breschet thinks that this affection may be compared to erectile tissues of soft parts, and that the pulsation in them, which is sufficiently powerful to have led to the comparison between them and aneurisms, properly so called, results from the synchronous movements of dilatation and contraction of all the small arteries which pass from the bony substance to the parts affected. From these partial but simultaneous movements results a continued motion, which has also been frequently observed in erectile tumors of the lips, and of the globe of the eye, &c. That the disease is of an aneurismal character, is proved by the fact that the ligature of the principal trunk arrests the disease.

The credit of being the first to detect the nature of this disease, and also of having first indicated the best mode of treatment, is due to DUPUYTREN.

M. Breschet is of opinion that neither topical applications nor compression can be of any service in this affection; the ligature is the proper remedy. The sooner, however, it is applied, the greater the chance of success; for the farther the disorganization of the osseous tissue has advanced, the greater will be the difficulty of cure, even when the aneurismal character of the complaint is removed by the ligature. When considerable disorganization has taken place, amputation offers the only hope of a cure.—*Repertoire général d'Anatomie, &c.*

*Two Cases of Injury of the Head, accompanied with a loss of Brain.* By THOMAS SEWALL, M.D. Professor of Anatomy and Physiology in the Columbian College, D.C.

CASE I.—In February, 1827, I was called to W. Brown, a coloured man, aged fifty years, who, in a rencountre with another individual, had received a severe blow on the right side of the head with a sharp spade. When I arrived, which was only a few minutes after the accident, I found him bleeding profusely, and already so much exhausted from the loss of blood as scarcely to be able to support himself. Though not insensible, he had lost his reason, and appeared not to know how he came by the injury. On examination, I found a deep wound dividing the integuments, the whole of the temporal muscle penetrating the cavity of the cranium, and extending horizontally, from an inch above the external angular process of the frontal bone, through the parietal bone just above the squamous suture, forming a fissure of three inches in length. The lower portion of bone was considerably depressed, and the two edges separated about half an inch.

Two branches of the temporal artery were taken up; when, on a more critical examination, it was ascertained that the dura mater was divided for an inch in extent, and the brain penetrated some way into its medullary portion, which was easily distinguished from its cortical part.

Suitable dressings were applied, and he was conveyed home, about one mile distant, and placed in bed with his head and shoulders considerably elevated. From the great loss of blood, his pulse was feeble, and his extremities cold. Warmth was applied to the limbs: he soon became sensible, and complained of severe pain in the head and vertigo. The most rigid antiphlogistic course was enjoined, and the patient placed under the immediate care of an intelligent student, who was directed to bleed and to purge in proportion to the reaction of the system, and with a freedom that should prevent any bad effects from subsequent inflammation. He was bled and purged daily for a considerable time, the circulation equalised by warmth applied to the extremities, and by gentle diaphoretic remedies given internally.

During the process of suppuration, the brain protruded and sloughed away, and subsequently portions were removed by a spatula.

A few days after the accident, a second wound was discovered, which penetrated the integuments and the frontal near the median line, and about one inch from the coronal suture. This wound was apparently made by a small spear-pointed instrument, and was so large as to admit a probe to pass through the skull.

For about ten days after the accident, the patient complained of constant and sometimes of severe pain in the head; and on one occasion was affected with a slight spasm of the muscles of the face, neck, and extremities. The wound healed, and in six weeks the patient was quite well. He has since followed his occupation, that of scavenger, and has not manifested any deviation in the functions either of body or mind from their ordinary healthy condition.

CASE II.—September 18th, 1827, Lewis Pool, aged five years, while playing in the street, was kicked by a horse, and taken up in a state of insensibility. I arrived a quarter of an hour after the accident, and found a semicircular wound in the integuments of the head, and, corresponding with this, a large fissure in the frontal and parietal bones, about three inches above the external angle of the right eye. Through this fissure a portion of brain protruded, something larger than a walnut, and was composed both of cortical and medullary matter, which were easily distinguished. This was so far separated from the parts beneath as to be removed without any violence.

Light dressings were applied, and the patient placed in bed. The pulse was slow and intermitting, the pupil dilated, and the skin cold. Very little blood had been lost from the accident.\* In a few hours he became sensible; the pulse rose, and he complained of pain in the head. He was bled to fainting.

Particular circumstances prevented the subsequent use of the lancet; but he was purged actively and daily for two weeks, and the pulse kept down by nauseating doses of the tartrate of antimony. Extensive suppuration came on, with a copious discharge of pus; the wound gradually healed; and in about five weeks the child was quite well. He has since remained in perfect health.

—*American Journal of Medical Sciences.*

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#### CHEMISTRY.

*A Method of detecting the Presence of Opium in very small Quantities.*—Dr. R. HARE, of Pennsylvania, has discovered a process by which the presence of opium contained in a liquid in the proportion of twelve drops of laudanum to half a gallon of water, may be detected. This method is founded upon the property which the meconic acid possesses of forming a precipitate with the solutions of lead. Thus, if a few drops of acetate of lead are dropped in an infusion containing opium in as small a proportion as above mentioned, an evident precipitate of meconiate of lead is obtained. If the quantity of opium is small, the precipitation is not effected in less than from six to twelve hours. It may be forwarded by being gently stirred with a glass tube, to detach the flakes from the sides of the vessel, which should be of a conical shape to facilitate their approximation during precipitation. When the meconiate of lead is thus settled at the bottom of the vessel, thirty drops of sulphuric acid must be poured into it by means of a glass tube, added to which

must be an equal quantity of the red sulphate of iron. The sulphuric acid, uniting with the lead, sets free the meconic acid, which, by combining with the iron, produces that particular red colour indicative of the presence of that acid, and consequently of opium.

*Gallates of Quina and Cinchonia.*—M. PLATANIA forms these compounds in the following way: Pour an infusion of galls into a hot solution of the sulphate of quina, wash the precipitate with cold water upon a filter, and dry it at 100° of Fahr. Afterwards dissolve it in warm alcohol; pour off the solution, and evaporate it; then add cold water to it, which precipitates pure gallate of quina.

Another process consists in pouring gallic acid into sulphate of quina, and merely washing the precipitate with cold water; and it may also be formed by directly combining the acid and base, each separately dissolved in alcohol. Gallate of quina is very white and light; its specific gravity is 0.816 at 60° Fahr. Its vapour is astringent, and very slightly bitter; it is soluble in alcohol and ether, but almost insoluble in water. It is composed of nearly

Gallic acid ..... 14.87

Quina ..... 85.13

100.00

The gallate of cinchonia is obtained by dropping gallic acid into a solution of cinchonia; the gallate precipitates, and is to be redissolved in water, and suffered to cool; the liquid becomes opalescent, and deposits granular transparent crystals.—HENSMAN'S *Repertoire de Chimie*, &c.

*Action of Alkalies, and their Carbonates, &c. on Iodides.*—M. BERTHEMOT, having made numerous experiments on the action of alkalies and some metals on the iodides, concludes: That the earthy oxides, and their carbonates, do not act upon iodide of mercury;—that potash, soda, barytes, and strontia, decompose iodide of mercury by the intervention of water or alcohol, and there result oxide of mercury and tri-iodo-hydrargyrate of potash, which, on the cooling of the liquors, successively deposit iodide of mercury and bi-iodo-hydrargyrate of potash;—that lime produces the same phenomena, with this difference, however, that the action occurs only by the intervention of alcohol;—that the soluble carbonates of the alkaline oxides also decompose iodide of mercury, and yield analogous products, but only with the intervention of alcohol;—that the insoluble carbonates of the alkaline oxides do not act upon iodide of mercury, either by the intervention of water or alcohol;—that the protoxide of mercury decomposes the iodide of potassium, forming potash and metallic mercury, or protiodide of mercury and iodo-hydrargyrate of potash;—that the remaining alkaline iodides have a similar action, except that of calcium, which does not appear susceptible of it;—that peroxide of mercury decomposes the alkaline iodides, forming an alkaline oxide and bi-iodo-hydrargyrate.—*Journal de Pharmacie*.

#### MISCELLANEOUS.

*Cupping Glasses to Poisoned Wounds.*—DR. PENNOCK, of Philadelphia, has lately repeated a series of experiments similar to those which had been previously made by DR. BARRY. The conclusions Dr. P. has arrived at are as follow: viz.

1st. The usual effects of poisoned wounds cannot take place during the absence of the atmospheric pressure procured by the application of cupping glasses.

2d. Such application does not arrest the deleterious action of the poison by withdrawing it from the exposed surface. On the contrary, the fatal effects are wholly prevented, though not a particle of the substance employed has been abstracted. In proof of this, if a poison, in powder (strychnine or arsenic, for instance,) be conveyed by a tube through a narrow wound, in an oblique direction under the integuments, to some distance from the opening by which it is introduced, and there deposited, and under these circumstances the glass be applied over this spot, where the skin is sound and unbroken, the wound being without the bounds of the glass, none of the poisonous substance will be removed, and yet no indication of its action will be presented during the time of the application of the glass.

3. The constitutional symptoms, such as tetanic convulsions, &c. are arrested by the establishment of a vacuum on the poisoned surface; then, by removing the poison by an incision through the integuments, the life of the animal is preserved.

4. When the cupping glass is applied over the opening made in the integuments, for the purpose of introducing the tube containing the poison, and this is deposited under the skin beyond the circumference of the glass, none of the effects are manifested during the continuance of the vacuum; but, as soon as the cup is removed, the action of the deleterious article commences.

5. If, during the application of the cupping glass, placed as just stated, an incision be made between its edge, and the place at which the poison has been lodged, death will ensue as speedily as though the atmospheric pressure had not been removed.

6. If, after the application of the glass, for a given time, to the sound skin over the spot where the poison has been deposited, the glass be removed, *death will then ensue as soon as if no such application had been made.*

This last position is entirely at variance with the observations of Dr. BARRY. He expressly says, that, "after the glass had been taken off, the animal continued for one or two hours to carry imbedded in his cellular tissue a dose which would infallibly have destroyed him in a few minutes, had the cupping glass not been previously applied." Dr. Pennock has, however, repeatedly observed that if the animal was abandoned to his fate after the glass had been removed, after an application of it for an hour or more, that death took place as soon afterwards as it ordinarily did when no vacuum had been formed. This very important practical fact has been verified by numerous experiments.

Being desirous of rendering more generally useful the method of preventing the fatal effects of poison by the exhaustion of cupping glasses, Dr. Pennock resolved to institute a series of experiments on the bite of the rattle-snake. He did not succeed, however, in procuring one of these animals whose bite was mortal. The difference of the habits of the animal whilst in captivity from those in a state of nature, and the want of a proper subsistence for several months, probably produce inertness of the secretion. The supposed specifics for the bite of a rattle-snake owe their reputation to having been used where no fatal effects would have resulted.—*American Journal of Medical Sciences.*

## INTELLIGENCE.

### MONTHLY REPORT OF PREVALENT DISEASES.

WE have recently met with a good deal of fever, and in a considerable number of instances the disease has assumed an intermittent type. Notwithstanding the wetness of the season, however, it does not appear to have been upon the whole unhealthy. There has been much less than usual of diarrhœa, and scarcely any cases coming under the description of cholera have fallen under our notice: indeed, it is only during the last ten days, since the weather became warmer, that any form of bowel complaint has been common.

*College of Surgeons.*—MR. LAWRENCE has been elected a member of the Council of the College of Surgeons.

### *Examinations for the Degree of M.B. at Cambridge.*

*To the Editors of the London Medical and Physical Journal.*

GENTLEMEN,—In your last Number, a correspondent, who signs himself VERAX, has given a list of questions which were submitted to the candidates for the M.B. degree in the university of Cambridge in June last. He leaves the public "to judge whether such an examination is inferior to any in Europe in difficulty, and whether persons *answering them fully on paper* are not qualified for their admission to their first degree." Now VERAX is either uncandid, or he is ignorant of the subject upon which he ventures to address you. For it is notorious that many of the most difficult questions in these examinations are generally *not answered at all*, and they are selected in order that a candidate of very superior qualifications may have an opportunity of distinguishing himself from the crowd, or that, by their *subsequent publication*, the importance of an university education may be inferred from the difficult examination which the candidates are hastily presumed to have passed. But allow me to state that, if only a few of these questions are answered, the candidate still receives his degree. A printed list of all the questions is given to him upon his admission, and, by subsequent reference or study, he *may* become capable of understanding the whole. He then shews his examination with confidence, and comments upon its severity; and his ability is estimated by a test to which he has not in fact been fairly submitted.

I am, gentlemen, your obedient servant,

JUSTUS.

*Remarkable Appearance in the Eyes of a Child.*—One of the leading wonders of the day in the French capital, to which the "seekers of the extraordinary" have been lately attracted, has been an infant of three years of age, who was said to have the words NAPOLEON EMPEREUR very clearly marked in her eyes. Unwilling to allow this lusus to escape us, we took advantage of an opportunity, afforded us by the kindness of Mr. GUTHRIE,\* of judging for ourselves. We confess we were before a little sceptical upon the subject. The fact is simply this: The child has light blue eyes, the irides being very strongly striated with irregular white lines, which have been thought to constitute the above ominous words. In our opinion, it would require, a very

\* At this time she was not publicly exhibited.—E.

poetical vision, and a great deal of imagination, to discover them. Some of the lines certainly resemble letters, but we endeavoured in vain to make out any distinct words. It is true we had no magnifying glass at hand, which the mother assured us was necessary to make the letters clearly perceptible.

The French police have taken alarm, and have deemed it prudent to deprive the friends of various certificates which they had obtained from different persons, asserting that they could with facility decipher the much dreaded name. We remember that, some years ago, the name of Napoleon was said to have been detected upon a hen's egg, in good round German text. The times were then propitious for the occurrence of such a phenomenon; but, if it were to happen now, the ill-fated animal would probably be placed under the strict surveillance of the guardians of public tranquillity. If the memory of Bonaparte is not kept alive by any more alarming circumstance than the appearance in the eyes of this very engaging infant, the Bourbon dynasty will not be endangered.—We believe it is intended to make a public exhibition of the child.

We are informed that Dr. MUNRO, of Edinburgh, frequently exhibited to his class, about two years ago, a child, in whose eyes many persons imagined they could trace the name and age of its father; and there is now living at Hull a boy, who is reported to have his name, *John White*, very clearly marked in the iris of each eye. In most persons who have light-coloured eyes, there may be seen around the circle of the iris irregular lines and marks of various forms; and, in the above cases, these natural appearances have been tortured into different words by the creative fancy of different individuals, either from a love of the marvellous or from interested motives.

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*Spontaneous Dislocation of the Hip-Joint.*—A healthy boy, about fourteen years of age, very imprudently amused himself by frequently remaining in the water, bathing, for several hours a day. He became subject to rheumatic affections of his joints, and complained of uneasiness in his hip, which prevented him from moving without great pain. By care and appropriate treatment, he soon recovered the use of the limb. He was now deemed convalescent; but, after having passed a good night, he rose in the morning perfectly lame, and his hip-joint was found to be dislocated. He had met with no accident, nor was he conscious of having been at all restless during the night. For what reason we know not, but no attempts were made to reduce the dislocation, until a year had elapsed. Every effort was then excited in vain to restore the parts to their natural situation, and the patient now remains a complete cripple. The head of the thigh-bone may be plainly felt on the dorsum of the ilium.

We presume that in this case dislocation occurred either from a relaxation of the ligaments, or perhaps from a loss of muscular power, and brought on by the imprudent habit which we have mentioned. Sir ASTLEY COOPER mentions similar cases in his splendid work on Dislocations.

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*Mineral Teeth.*—There are many disadvantages attending the common mode of preparing mineral teeth in one solid piece. M. BOULLAN COURT, who was long under the tuition of the famous DELABARRE of Paris, has succeeded in mounting them exactly in the same manner as the natural teeth. By this means the disagreeable sensation and noise in the mouth, which exist



when they are formed of one solid piece, are obviated. They are light and comfortable in the mouth, and of a very natural appearance.

M. Boullancourt has also made several very ingenious improvements in the construction of artificial noses, and in different instruments for defective palates.

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*Second Editions of Works.*

*To the Editors of the London Medical and Physical Journal.*

You will oblige a member of the College of Surgeons by giving insertion to the following note.

Some time ago you did me the honour to notice with approbation some sentiments contained in a note, on the advantages we should derive by authors publishing alterations and improvements in their second editions, in the form of appendices. Since that period I am happy in being able to state, Dr. ARNOTT has set an example which deserves to be noticed. He has published a second edition of his interesting work on Physics, and has had the generosity to publish separately, in the form of Appendix, the alterations and improvements contained therein. Were such a practice to prevail, the benefit to the profession and public would be incalculable.

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*Literary Notices.*

*Observations on Fever.* By R. WADE, Member of the Royal College of Surgeons. Second edition. 1828.

We are glad to see that this little work, to which we formerly drew the attention of our readers, has reached a second edition. It is expressly designed for the use of students, and well calculated for its object. The author has lived much among patients and pupils, and endeavours to carry his readers to the bedside, describing diseases as they are to be found in actual practice, and pointing out the appropriate remedies in a clear and perspicuous manner. It would be foreign to our object to quote from a work avowedly elementary, or to enter at large into details which do not profess to contain any thing new; but we recommend the work to young practitioners as containing various remarks calculated to prove useful to them.

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*Natural Theology; or, Evidences of the Existence and Attributes of The Deity, collected from the Appearances of Nature.* By WILLIAM PALEY, D.D. Illustrated by a series of Plates and Explanatory Notes. By JAMES PAXTON, Surgeon, Oxford. Second Edition.—2 vols. 8vo. Vincent, Oxford, 1828.

It may appear to be travelling out of our record to take any notice of such a work as the present. But, as the author has drawn his numerous illustrations and proofs from the marvellous machinery of animated nature, the medical student and practitioner will both derive instruction and amusement in the perusal of it. Dr. Paley's work is too firmly established in public opinion to require any formal praise at our hands. Mr. Paxton, the editor of the present edition, deserves, however, our especial thanks for having considerably increased the utility of the original work, by his graphic illustrations and explanatory and emendatory notes; for the want of which there was before some difficulty in fully comprehending the text, notwithstanding the simple perspicuity of style which characterises all the writings of Dr. Paley.

## MONTHLY LIST OF MEDICAL BOOKS.

[Medical Works cannot be entered on this List except a copy be sent for the purpose; the titles of Books having frequently been transmitted to us, as published, which have not appeared for weeks, or even months, after.]

A Letter to the Right Hon. Robert Peel, Secretary of State, &c. &c. on some of the Impediments, Defects, and Abuses existing in the present System of Medical Education; with Suggestions for their Removal and Correction. By HENRY WILLIAM DEWHURST, Surgeon, Lecturer on Anatomy, &c. &c. —London. Stitched, pp. 51.

A Manual of the Anatomy, Physiology, and Diseases of the Eye and its Appendages. By S. J. STRATFORD, Member of the Royal College of Surgeons in London: Surgeon to the Dispensary for Diseases of the Eye; and late senior Assistant Surgeon of the 72d, or Duke of Albany's own Highlanders.—8vo. Longman and Co. London, 1828.

## METEOROLOGICAL JOURNAL,

From July 20th, to August 20th, 1828.

By Messrs. HARRIS and Co. Mathematical Instrument Makers, 60, High Holborn.

July	Rain gauge.	Moon.	Thermom.			Barometer.		De Luc's Hygrom.		Winds.		Atmospheric Variations.		
			9 A.M.	MAX.	MIN.	9 A.M.	10 P.M.	9 A.M.	10 P.M.	9 A.M.	10 P.M.	9 a.m.	2 p.m.	10 p.m.
20	.98		66	64	56	29.30	29.34	49	49	SE	NNE	Rain	Rain	Rain
21	.95	☾	62	60	55	.36	.34	50	50	W	S	Fine	—	—
22			62	60	59	.40	.50	49	50	NNW	NW	Cloudy	—	Fair
23	.9		69	72	60	.59	.57	50	50	W	W	Fine	—	—
24	.28		67	68	60	.54	.48	49	49	W	W	Rain	—	—
25	.14		66	72	60	.43	.50	50	50	W	W	Fine	—	—
26	.11		66	70	56	.61	.62	50	50	WNW	WNW	—	—	—
27	.6		66	71	54	.64	.68	50	50	NW	NW	—	—	—
28			65	68	56	.85	.84	50	49	NE	N	Cloudy	Fair	Fine
29	.6	☉	68	56	49	.90	.74	47	46	NNE	ESE	Fine	Rain	—
30			56	65	51	.76	.58	46	45	NNE	NNW	—	Rain	—
31			64	66	58	.90	.89	45	45	NW	NW	—	Fine	—
Aug. 1			64	69	61	.89	.80	45	46	NW	SW	Fair	Cloudy	Rain
2	.8		69	66	56	.62	.50	46	47	SW	W	Cloudy	Rain	Fine
3	.52	☾	62	59	56	.51	.42	48	49	W	W	Fine	Rain	Fine
4			61	69	56	.42	.45	49	49	NW	W	—	Fair	Rain
5	.3		70	71	60	.46	.51	49	49	NW	W	Fine	Rain	—
6	.32		71	65	59	.40	.20	49	49	WNW	NW	Cloudy	—	—
7	.41		63	72	61	.31	.40	49	50	WNW	NW	—	—	—
8			65	74	59	.48	.52	50	50	W	W	—	Fine	Fine
9	.6		78	68	59	.40	.80	50	50	SW	W	Rain	Fair	Fair
10			66	68	56	.50	.58	50	50	W	W	Fine	Show'ry	—
11	.21		62	68	58	.60	.54	49	48	W	WSW	—	—	Rain
12	.3	☉	61	69	56	.64	.72	48	48	WNW	W	Cloudy	Rain	Fine
13	.90		62	66	56	.72	.61	49	49	W	SSE	Fair	—	Rain
14	.4		69	56	55	.43	.50	49	50	E	ESE	Rain	—	—
15			52	56	53	.70	.72	50	50	NNE	NW	Fine	Fine	Fine
16			61	66	56	.82	.84	50	49	NW	W	—	—	—
17			60	68	55	.80	.71	49	50	W	NW	Rain	Rain	Rain
18			62	69	54	.82	.89	50	50	NW	NW	Fine	Fine	Fine
19			66	69	57	30.00	30.01	50	50	NW	NW	—	—	—

The quantity of Rain fallen in the month of July, was 5 inches and 36.100ths.

## NOTICES.

The Communications of DR. BLAKE, MR. KITSON, and DR. BOW, have been received.

# THE LONDON Medical and Physical Journal.

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NO 356, VOL. LX.]

OCTOBER, 1828.

[NO 28, *New Series*.]

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For many fortunate discoveries in medicine, and for the detection of numerous errors, the world is indebted to the rapid circulation of Monthly Journals; and there never existed any work, to which the Faculty, in Europe and America, were under deeper obligations, than to the *Medical and Physical Journal of London*, now forming a long, but an invaluable, series.—RUSH.

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## ORIGINAL PAPERS,

AND

CASES OBTAINED FROM PUBLIC INSTITUTIONS AND OTHER  
AUTHENTIC SOURCES.

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### FORAMEN OVALE.

*A Case of the Foramen Ovale found not closed on the Dissection of a Soldier, with its previous History, and Observations; as reported to the Director General of the Army Medical Department, in December last.* By ANDREW BLAKE, M.D. Member of the Royal College of Surgeons, and Surgeon to the 7th Dragoon Guards.

A DRAGOON, aged twenty-one years, of the sanguineous temperament, a robust make, and not brought up to any trade, at the expiration of two years and ten months' service, reported himself sick, on the 8th of September, 1826. On examination, he appeared to labour under slight febrile symptoms, and stated that for some time past he had been subject to what he called weaknesses, but which appeared to have been attacks of syncope cardiaca, during which he became insensible, and the face, but particularly the lips, assumed a dark colour. They were not, however, of long duration, and their effects were quickly dissipated.

Soon after his admission, the febrile symptoms increased, and he seemed to labour under an inflammatory affection of the viscera of the left side of the thorax, in which the heart or pericardium participated: at least, he suffered from the principal diagnostic symptoms of these complaints, namely, pain in the cardiac region, attended with a rapid irregular pulse, cough, and a sense of extreme uneasiness and suffocation, which were all greatly augmented by the horizontal

position. He attributed his state to the effects of a fall he met with while exercising his horse, soon after he began to learn to ride; for which it appears my predecessor, Dr. ROSE, found it necessary to bleed and blister him. During the whole of his life, previous to his having fallen from the horse, he enjoyed uninterrupted health.

For these alarming symptoms I bled him twice copiously, administered digitalis, with calomel and opium, and kept a blister open on the chest. These remedies arrested the progress of the disease, but palpitation of the heart and irregularity of the pulse continued, attended with occasional attacks of syncope cardiaca.

The system was now brought slightly under the influence of mercury. He was put on milk diet, and digitalis was given in large doses. Under this treatment he seemed to recover gradually, and was discharged to duty on the 11th of October following, in apparent good health.

He continued well, and able to perform all the duties of a dragoon without inconvenience, up to the month of April, 1827, when he embarked at Dublin for Liverpool, on his way to Coventry. On my arrival there soon after, I found him in hospital, suffering from cough, with muco-purulent expectoration. The lips were of a livid hue; he complained of confusion in his ideas, and appeared listless and inactive. These symptoms gradually increased, and were latterly accompanied with hectic exacerbations and occasional diarrhoea, which alternated with colliquative perspirations.

On the 27th May, 1827, I reported his case to the director general as one of phthisis complicated with disease of the heart, with a view to obtain his sanction to the patient's return to his native place, which was immediately granted; but his situation unexpectedly became such as to preclude the possibility of indulging him in the object he so much wished to obtain. From being able to walk into the country, which he was in the habit of doing daily, he became suddenly so weak as not to be able to get out of bed; and, without suffering from any other apparent symptom than those already mentioned, attended with extreme debility, he expired on the fourth day of his confinement to bed, without even being previously affected with the mucous wheeze.

In my report to Sir JAMES M'GRIGOR, above alluded to, I stated the result of having explored the thorax to have been as follows: "Percussion elicits a dull sound from the whole of the lower part of the left side of the thorax. The stethoscope conveyed the respiratory murmur very indistinctly from the same parts. On exploring the cardiac region parti-

cularly, the rythm was observed to be occasionally irregular; the impulse on the left side was more considerable, while the sound was nearly equal on both sides, though greater than natural. Pulse generally very quick, and sometimes irregular."

The body was examined twenty hours after death by Dr. STEWART, now physician to the forces, and myself: it presented an emaciated appearance, and a matter of a bilious and fetid nature flowed from the mouth, while the abdomen was distended as if by flatus.

The abdominal cavity was first opened, from which there issued a considerable quantity of sero-purulent matter. The surface of the intestines generally presented the appearance of having been inflamed, and were covered with thick and adhesive purulent fluid; large quantities of which, from gravitation, had accumulated in the lumbar regions. The marks of inflammation were not vivid, but of a very pale rose colour. The intestines presented nothing remarkable in their structure; but the peritoneum covering the right lobe of the liver, and lining the contiguous parts, seemed also to have undergone inflammation, and was thickly covered with the same kind of viscid pus-like fluid as already spoken of. A superficial stratum of the parenchyma of this lobe appeared to have participated in the inflammatory action, but the remainder of its substance was perfectly healthy. It was rather remarkable that this inflammation terminated abruptly at the falciform ligament, and did not extend to the left lobe or its covering. No other morbid appearances were discovered in this cavity.

On removing the sternum, universal adhesions were brought into view on both sides of the thorax, but on the left they were of a much more dense and firm structure than on the right. In the cavity of the former the contents appeared as one mass, from being so intimately blended together by the effects of adhesive inflammation, more especially on the anterior surface of the pericardium, where large quantities of coagulable lymph had been extravasated. The structure of the lung on this side, when cut into, shewed extensive devastation from the ravages of tubercles and vomicæ; while that on the right side, although slightly tuberculated, appeared still to be capable of performing the respiratory function. Having laid open the pericardium, an unusual quantity of serum was found in its cavity, and the right sinus of the heart appeared enlarged and dilated. On removing the heart, together with as much of the great vessels as were thought necessary, its minute examination

was commenced by laying open the right sinus from the inferior cava to the extreme point of its auricular portion, by which the right side of the septum between the auricles was exposed, as also the Eustachian valve, which in this subject was remarkably beautiful. On examining the site of the fossa ovalis, a perfect and well-defined opening was observed at its upper and posterior part, of size sufficient to admit the largest goosequill, and leading in an oblique direction through the coats of the inter-auricular partition from right to left, forming a canal nearly a quarter of an inch in length, and thus preserving by its obliquity somewhat of a valvular character. At this stage of the dissection, the valve of the coronary vein was also observed: it was larger than usual, and beautifully delicate in its structure. There was now likewise an opportunity of observing that, independently of the enlargement of this auricle, its structure was extremely thin and relaxed. The right ventricle exhibited no remarkable appearance; the left auricle was also natural, save the opening already spoken of; but the left ventricle, in its external appearance and internal capacity, was corrugated and contracted, while its walls were strong, firm, and hard to the feel, evincing a comparative state of hypertrophy with regard to the other parts of this organ. No further effects of disease were found in the prosecution of this post-mortem investigation.

A preparation was made of the heart, displaying its peculiarities of structure: it accompanied this report, and is deposited in the army medical museum at Chatham, by order of the director general.

*Observations.*—It is difficult to account for the morbid appearances which the abdominal cavity presented in this case, as they were produced without any premonitory symptoms having manifested themselves, save occasional diarrhoea, with which the patient was not troubled for some days previous to his death. They appeared to me to have been the effect of a last effort of nature to establish a metastasis in favor of the more important organs already engaged, and which, being too great for the constitution to support in its reduced state, was the immediate cause of the sudden and fatal termination.

With respect to the opinions and prognosis which the symptoms of this case were likely to suggest, more particularly with regard to the state of the heart, I think it will be allowed they must have been very uncertain; and I am of opinion that whenever a similar case occurs,—that is to say, when a like malformation of the adult heart is combined with

acute inflammation of the lungs on the left side,—although the stethoscope may enable us to discover the disorder in the organs of respiration, yet the heart or pericardium will always be supposed to be materially implicated in the inflammatory action which is going on.

In my yearly report to the director general, dated December 1826, at the conclusion of my observations on this man's first attack of illness, I expressed myself thus: "I must confess that I felt a good deal alarmed for the safety of my patient, as I feared, from the long-continued irregularity of the pulse, that structural disease must have existed: however, I observed at times that the pulse resumed its regularity; which circumstance assured me that the integrity of the heart and its appendages had been preserved, and that these symptoms only arose from some functional derangement of that important organ. The cases quoted in GOOD's work and in the Parisian hospital reports, tended much to give me confidence in my prognosis."

From what has been stated it will appear evident that, although I was correct as to my prognosis in this case, as far as regarded the integrity of the heart from the effects of active inflammation, I was not aware of the structural malformation which existed in the communication through the auricular septum, the oblique direction of which, acting as a valve, prevented, under ordinary circumstances, the development of any symptom which was capable of denoting its existence. I therefore hold this case to be of particular interest, inasmuch as it will serve to render practitioners cautious in forming a prognosis, lest such a combination of circumstances as are here alluded to may take place, and prevent them from pronouncing too hastily (because the irregularity of the pulse may be only occasional,) that their patient does not labour under some structural malformation of the heart.

Had the subject of this report lived a monastic life, where little or no bodily exertion would be required, he might have obtained old age without the irregularity being observed; but the fall he met with from his horse, and the necessary exertion and *gêne* which learning to ride in a cavalry regiment requires, appear to have forced the blood in an improper course, and excited the symptoms of deranged circulation already described. All such irregularities, under particular circumstances; must necessarily produce concomitant congestion, and thus gradually excite other structural changes in the organ in question, as well as inflammation in the lungs, more particularly where there is a tubercular disposition, as

appears to have existed in this case. Indeed, whenever such a communication exists, which, owing to its valvular formation, may perhaps not serve as such until the patient shall have made some violent exertion, and is attacked with acute inflammation of the lungs, (possibly on the left side,) I am not acquainted with any diagnostic mark which, during the inflammatory action, will prove that the heart or its appendages are not equally engaged with the lungs. It is fortunate, however, that, in a practical point of view, the diagnosis is unimportant, as the treatment required in either case must be similar.

The preparation which accompanied this paper appeared also interesting in exemplifying, by the disposition to valvular formation which it exhibited, parts that in ordinary subjects are not so well marked; and, notwithstanding the following observation of that able anatomist, the late Mr. SHAW, viz. "this is so common that we cannot attach much importance to it," I took the liberty of offering it to Sir James M'Grigor for the interesting museum formed under his auspices at Chatham. Mr. Shaw also says he discovered in the septum auriculorum of the heart of a strong drayman, who died from rupture of the aorta, and who did not appear to have suffered from any affection that could be referrible to the state of the heart, an opening which would admit four fingers, although no valvular contrivance was observed in this case. This, in my opinion, might well be placed in the collection of "*cas rares*;" and the non-existence of symptoms denoting deranged circulation during lifetime can only be accounted for by supposing the equilibrium of size and power between the auricles to have been most accurately preserved, and consequently that the contracting power at one side of the heart did not prevail over that of the other.

Neither MORGAGNI nor Dr. BAILLIE give any specific example in their writings of the peculiarity in question having been found in an adult; and MASON GOOD, in his work, says, in the article on *Cyania*, "We may confidently assert that, whenever so large a portion of venous blood is thrown into the arterial circulation as to give a blue tinge to the lips, or the skin generally, all the functions will be performed feebly, and there is great danger that the infant will never reach the age of puberty."

It is to be remarked, in the case which forms the subject of this paper, that, previous to the fall alluded to, the individual was apparently healthy: consequently, it is to be supposed that the structural disease manifested by the dila-



tation of the right auricle, and hypertrophy of the left ventricle, must have been of subsequent formation; as, otherwise, it is more than probable irregularity of the pulse, and more or less cyania, would have been the consequence at an earlier period, owing to the disproportion which would have existed between the chambers of the heart.

*Manchester Barracks ;  
August 5th, 1828.*

#### FEVER.

*Observations on Fever.* By W. F. BOW, M.D.

I HAD the honour of appearing in the Numbers of your Journal for March, April, and May, as the author of some speculations on the nature of fever. I there hazarded an opinion regarding the heat of the surface. I said that, during the first stage, the products of secretion throughout the system were imperfectly secreted, in consequence of the impairment of nervous energy; that these imperfect products at length irritated the extremities of the sentient nerves, and thus caused the reaction which introduced the second stage; that, owing to the great sensibility of the skin, reaction first manifested itself there by a sense of heat; and that the preternatural heat of fever depended on such irritation, and was not caused by increased vascular action.

My object in now addressing you is to call the attention of your numerous readers to this point: many of them may have an opportunity of watching the progress of febrile attacks in their own persons during the autumn: if so, I am confident they will find that heat of surface, more or less, invariably precedes increase either of force or frequency of pulse. I begin to suspect that the contrary opinion is the offspring of theory rather than of clinical observation, and that the general belief in this doctrine is the chief obstacle in our research into the nature of fever. As an instance how apt we are to be misled by preconceived ideas, or by the authority of great names, Dr. CURRIE, throughout his "Reports," never doubts but that the heat of the surface in fever is caused by increased vascular action. He believes it to accumulate first about the heart, and to extend to the surface; yet he commences his work with a case which shews evidence to the contrary. This case is the more to be depended on as it is reported by the patient himself, Dr. WRIGHT.

"By my attention to the sick man, I caught the contagion, and began to be indisposed on the 5th of September; and the follow-

ing is a narrative of my case, extracted from notes daily marked down, &c. September 5, 6, 7.—Small rigors now and then; a *preternatural heat of the skin*; a dull pain in the forehead; the pulse *small and quick*."

Dr. Good considers heat to be the result of increased action. "For as the former [heat] is the result of increased action, till such increased action takes place, the heat, as in the first stage of the paroxysm, may continue even below the natural standard."\* Yet his diagnosis of mild remittent fever runs as follows: "The patient complains of drowsiness, and feels languid; is occasionally chilly, and afterwards flushed, but without perspiration; for the skin is *hot and dry*, the thirst considerable, commonly with nausea and a total loss of appetite. In the course of the day, but usually towards the evening, the *pulse quickens*, the *heat increases*, and at length terminates in sweat."

Dr. Good also illustrates the autumnal remittent with a case, in which I suspect heat of skin existed, with a *feeble* pulse.

"In the case of a young lady, in her seventeenth year, whom I lately attended, the attack was slight, and no serious evil was at first apprehended. The pulse was about ninety in a minute, and rather *small*; the bowels were relaxed, the motions bilious, and the stomach suffered from nausea. A gentle emetic seemed to afford some relief to the stomach, and a dose of rhubarb and calomel to the bowels; but the *fever* continued with a daily and increasing exacerbation, for the most part at mid-day, or soon after. The stomach again became irritable and sick, and the sickness was again connected with diarrhoea; but the stools were colourless and watery, and nothing was rejected from the stomach but the diluent food that was swallowed. The skin was now *very* hot and dry; the pulse from a hundred to a hundred and twenty strokes in a minute."

Now, in the first part of this case, although the heat of the skin is not mentioned, there must have been considerable heat, because Dr. Good says "the fever continued." Without heat greater than natural, the disease could not have been recognised as fever; and a pulse ninety, and smaller than natural, certainly cannot indicate increased action of the sanguiferous system.

*Alnwick; August 20, 1828.*

\* Study of Medicine, vol. ii. p. 40.

## PATHOLOGY OF PARALYSIS.

*Observations on the Cause of Paralysis in Painter's Colic.*

By GEORGE KITSON, Esq.

SEVERAL cases having occurred during the last five years which gave me reason to suppose that the cause of the paralysis from which painters, and others who are much in the habit of using lead, are so liable to suffer, might be found in the spinal canal, I was induced to examine a man who died under somewhat peculiar circumstances in the hospital; and the result of the examination having in some measure justified my anticipation, I am induced to send the case for insertion in the London Medical and Physical Journal, should it be deemed of sufficient importance to merit public attention. There are at all times numerous instances of this disease in the Bath Hospital; but so rarely does it prove fatal, that there has not been one instance of examination after death during eleven years that I have been surgeon to that institution.

John Mastin, a painter, aged forty, was admitted into the Bath Hospital, July 11th, 1828. The case sent to the hospital, which was most imperfectly stated, represented him to be suffering from rheumatic pains, chiefly of the hands and arms, without fever.

Mr. BUSH, the house apothecary, collected from him that he had had three attacks of "dropt hands;" that the last, which occurred about three months since, was the most severe, and was preceded by colic. He had been at sea, and had lived freely; his mind appeared somewhat confused, and the pupils more than naturally dilated.

Dr. BARLOW saw him the same day, when he found not rheumatism, but "dropt hands," from the poison of lead. The man made no complaint whatever, but his tongue being white and furred, the Doctor ordered him cathartic pills and an antimonial saline.

On the 13th, Dr. Barlow was called to see him. He complained of acute pain across the chest, with some pain of head. The pulse was ninety-six, full, hard, bounding; the tongue parched.

He was ordered to be bled; the saline every three hours, and cathartic pills.

14th.—The blood was bled and cupped. He expressed himself much relieved. Pulse softer, and tongue moist.

16th.—In consequence of some pain of head, Mr. Bush applied leeches to the temples.

17th.—Some relief from the leeches. Appearances indicated that disease was going on within the head.

He was ordered to be cupped at the nape of the neck, and a blister to be applied.

18th.—Said he was rather better. Though able to answer questions distinctly, there was some confusion of mind.

19th.—He seemed better. Pulse ninety; tongue moist; bowels open.

20th.—A tendency to coma.

The head was shaved, and cold applied to it during the day, from its appearing to soothe. At night, a blister to the vertex.

21st.—Pulse seventy-two. Intelligent, apparently, in answering questions; but mind confused, and obviously much disturbance within the head.

Calomel gr. ij. quartis horis.

22d.—Died early in the morning.

N.B. Sensation was not defective; nor was there any paralytic affection of the lower extremities.

On examining the body, nine hours after death, a very considerable quantity of dark-coloured fluid was found between the dura mater and arachnoid membrane, in the cranium, and spinal canal. Colourless fluid was also effused between the arachnoid and pia mater. The brain was extraordinarily firm; the cortical substance pale; and, from the state of the pia mater, and the spots of blood exhibited on dividing the medullary substance, there was not any reason to suppose inflammation had existed. No fluid was found in the ventricles. The theca vertebralis was distended with bloody fluid. The pia mater covering the cord in its passage through the inferior and superior dorsal vertebræ was injected with blood; so much so that for about three inches on the anterior surface the membrane was uniformly of a bright red colour: posteriorly, the membrane was less vascular, as well as less firmly attached to the cord. The superior part of the pia mater had the usual appearance, and it gradually approached the natural state as it descended to the lumbar region.

It appears probable, from the foregoing statement, that the disease commenced in the superior part of the spinal canal; and, as the nerves forming the axillary plexus are given off at the part most materially diseased, it is fair to infer that it was the cause of the paralytic affection of the arms. The serous effusion which produced the confusion of mind, and ultimately proved fatal, in all probability did not take place until a few days previous to the man's dissolution; and as it may be doubted whether there be any evidence of actual inflammation of the brain or its membranes having existed, it is not improbable that the effused fluid was produced by the disease in the spinal canal.

*Bath; August 15th, 1828.*

## DISEASE OF THE KIDNEY.

*Case of Disease of the left Kidney, which terminated fatally.*

By J. BRYANT, Esq. Surgeon Accoucheur.

Mrs. T—, aged twenty-five years, a healthy looking woman, fair complexion, was, four days after a tedious labour, (in which both the fœtuses and secundines were materially assisted in their expulsion by *secale cornutum*,) seized with severe pain in the left side, about the sigmoid flexure of the colon. Up to this period she was doing extremely well; lochial discharges natural, and plentiful secretion of milk. The pain was increased by pressure. Recollects, about two years since, being affected in a similar manner; which she attributed to have been in consequence of carrying a heavy weight up stairs.

Pulse frequent, full, and hard, with general pyrexial symptoms; the bowels had been evacuated the previous day by salts and senna.

Ordered to be bled to  $\text{℥iv}$ . Twenty leeches to part affected; and two pills of Calomel, Antimony, and Opium directly, and a dose of Castor-oil in four hours.

Six o'clock P.M.—Bowels have been freely relieved; pain and fulness much diminished; has slept three hours, and could turn on either side; pulse eighty-four, and soft; skin moist.

Take, every five hours, Sulphate of Magnesia, Tartarised Antimony, and a pill of Extract of Henbane with each dose of the mixture. Dry fomentations of heated malt to the side; and farinaceous diet.

These remedies were continued for the next five days, when she became convalescent, and continued tolerably well up to the 15th April, when my attendance was again requested. She now complained of uneasiness of the same side, which she ascribes to over-exertion. Has applied a blister, which is now acting. Pulse nearly natural, with little or no febrile excitement; bowels constipated.

Ordered recumbent position and aperient medicine.

17th.—Bowels relieved; less uneasiness, but has vomited during the night, stomach continuing irritable.

Saline medicines in a state of effervescence, with small doses of Tincture of Opium, were given.

18th.—The stomach is now quiet. Blister nearly healed; but there is an evident fulness and hardness over the seat of pain, which is increased by pressure. Pulse frequent, and somewhat fuller.

Ordered fourteen leeches to the part; and a draught with Rhubarb and Tartrate of Potass directly; and a mixture of Tincture of Henbane and Infusion of Linseed every five hours.

21st.—Pain relieved; pulse ninety, and less full; bowels open

Repeat the leeches and saline medicines, with Extract of Henbane, every four hours.

23d.—Fulness and hardness increasing, and extending obliquely towards the right hypochondrium, and downwards to the pubes.

Repeat the leeches, and continue remedies.

24th.—Pain relieved. The tumor reaches from the pubes, and extends to and under the margin of the ribs on the left side; pain more dull and obtuse. Had a smart rigor this morning. Urinates freely and without pain, but the secretion emits an odour similar to animal broth in a state of decomposition, yet not turbid. She was now seen by several medical friends, some of whom were of opinion it was a suppurative spleen; others, an abscess in the left ovarium. Dr. NEVINSON, who saw her at this time, conjectured it might be the kidney. Cataplasms with conium were now applied to the tumor. Pulse quick, small, and hard; bowels regular; has not rested.

Opiate at bedtime.

26th.—Blister over the tumor, and five grains of the Soap-pill, with opium and saline mixture, every five hours.

28th.—Blister has afforded some relief. Has had a good deal of bilious vomiting for the last three or four days.

Carbonate of Potass and Magnesia, with lemon-juice, every five hours; with an opiate pill at bedtime.

80th.—There is a perceptible deep-seated fluctuation about the centre of the tumor. Cataplasms with conium have been continued, from which she experienced considerable relief.

May 3d.—Still urinates freely, but it emits the same putrescent animal odour before remarked.

Take, every four hours, the decoction of Uva Ursi, with the Subcarbonate of Soda.

5th.—A considerable quantity of pus has been passed with the urine this morning. Tumor in the side considerably diminished.

Sulphate of Quinia, with Aromatic Confection, was now given every five hours.

7th.—Large quantities of pus continue to be discharged with the water, but without pain. Tumor is no longer perceptible, the abdomen being quite flaccid; no pain on pressure. Diarrhœa supervened this morning. Pulse quick and feeble; body much attenuated; animal spirits good.

Cusparia Bark was substituted for the Cinchona; and a large plaster of Albanum was applied over the left side, and a broad belt placed comfortably tight around the abdomen.—Diet, rice, chicken broth, and beef tea.

9th.—Diarrhœa still continuing, ordered Chalk mixture, with compound Powder of Kino, after every loose motion.

14th.—Diarrhœa having continued, with intermissions, since the 9th instant, half a grain of Superacetate of Lead, and half a grain of Opium, were given every four hours. The relief afforded by this medicine, both as regards the alvine and urinary excretions, was strikingly marked; but colicky pains supervening on the 24th, it was thought prudent to discontinue the lead.

29th.—Diarrhœa having again become troublesome, the white decoction, with compound Powder of Kino, was administered.

31st.—Diarrhœa somewhat alleviated.

Continue remedies, with Extract of Cascarilla and Black Pepper in pills.

June 8th.—Diarrhœa still continues, the dejections often appearing puriform.

Small doses of Sulphate of Copper with Opium were now exhibited.

15th.—The diarrhœa has been considerably diminished since the administration of the Sulphate of Copper, but was discontinued this morning, in consequence of a return of the bilious vomiting.

29th.—Very little medicine was given up to this period. The tongue and fauces have assumed an aphthous appearance. Diarrhœa occasionally troublesome; urine sometimes clear, at others turbid; the putrescent odour, which formerly emitted, has never been perceptible since the discharge of matter per urethra. Subborate of Soda, with Tincture of Opium and Infusion of Linseed, were given every four hours. These remedies were continued, with trifling alterations, up to the day of her dissolution, which took place on the 21st July.

During the last four days of her existence, she was seized with symptoms of cerebral derangement; pulse, which was before quick, small, and weak, now became comparatively full and hard; she could with difficulty be kept in bed; contracted pupil, and other symptoms of strong cerebral excitement.

*Post-mortem examination*, eighteen hours after death.—On proceeding to examine the body, the left side presented a dark surface, similar in appearance to what takes place in cases of internal mortification; and, on laying open the abdomen, the whole internal viscera were found considerably shrunk and displaced; the stomach being pushed upwards, having the lower opening in a direct line from above with the cardiac portion; liver preternaturally large; colon higher than usual, and the duodenum drawn to the left side. In the gall-bladder were found three biliary calculi, and one in the cystic duct. The left kidney was found much enlarged and discoloured, the pelvic portion of which was partially filled with dark, ill-conditioned pus, together with fourteen calculi, the size of hazel nuts, and had evident marks of having been the sac of an immense abscess, the contents of which had been discharged partly by the ureter, and partly by an opening in the duodenum, between which portion of intestine and the sac a communication was formed by ulceration. A layer of coagulable lymph covered the bladder externally, but in other respects was perfectly healthy.

*Edgware Road; August 1828.*

## DISEASE OF THE STOMACH.

*Observations upon a Disease of the Stomach, in which a well-defined Perforation takes place in the Tunics of that Organ, without any Softening of their Structure. Illustrated by Cases. By Dr. C. H. EBERMAIER.\**

NOTWITHSTANDING the attention of the profession has been directed to this subject by many able practitioners, no satisfactory information has yet been recorded which connects the appearances detected upon examination after death with the symptoms which existed during the life of the patients. The cases hitherto collected, in which these circumscribed perforations have been found, with smooth and regular edges, and without any alteration in the structure of the surrounding parts, have been generally in direct contradiction to the opinions formed from the symptoms complained of. In 1803, GERARD endeavoured to deduce some general opinions from the facts which had been stated respecting perforations of the stomach, and to explain the symptoms which took place during life. CHAUSSIER has also described an appearance sometimes detected in the stomach, which might be referred either to the action of poison, or to some external injury, or to disease of the stomach. His work relates principally to perforations produced by softening of the stomach. Since the moderns have become more familiar with this softened state of the stomach and intestines, cases of perforation and spontaneous rupture have been frequently observed and recorded. The disease upon which these appearances depend must consequently be common. The subject of perforations in the stomach with smooth edges has, however, been much neglected.

CASE I.—A woman, twenty-two years of age, of robust form, sought assistance for ophthalmia, under which she had laboured for several weeks. This affection was speedily subdued. Dr. E. was then informed that for many years the patient had suffered, almost constantly, from a train of symptoms which would hardly have been suspected from her general appearance of good health. The only mark of ill health was a slight paleness of the face. At the age of eighteen she began to menstruate, and, after having continued regular for about a year, the menses ceased, without any evident cause. For some months she continued in good health. At the end of this period, the digestive functions were much disturbed: her stomach ceased to bear her accustomed food; even the lightest aliment produced considerable pain in the stomach, acid eructations, and pains in the precordia. These

\* Journal Complémentaire, Juillet 1828.



symptoms gradually increased both in duration and severity, and frequently appeared suddenly after the patient had eaten. Vomiting soon took place some hours after food had been taken; half-digested aliment, mixed with mucus, was thrown from the stomach. The symptoms were not, however, relieved by the stomach being thus freed from its contents. At length the vomiting became almost constant, even after the mildest food, but it was not so violent. The symptoms were not yet, however, so severe as to confine the patient to bed, or to prevent her from following her ordinary occupations, excepting occasionally for a few hours. The nutrition of the body did not appear to be much diminished. So far from this being the case, there were intervals of some months in which the patient enjoyed comparative ease, and during which the spasms of the stomach were so much diminished as to lead to the hope of radically curing a disease which had been considered more distressing than dangerous.

During the first two years, a great variety of means were had recourse to, without any avail. The whole tribe of antispasmodics and emmenagogues were exhausted in vain. The menstrual discharge did not appear. The imperfect digestion, the vomiting, the dull pain in the region of the præcordia, and occasional attacks of fever, continued without diminution. The patient consequently lost all confidence in the power of medicine, and resolved to trust to the efforts of nature alone; which she did during one year.

It was presumed that the derangement of the stomach was produced by the total suppression of the menstrual discharge.

Having again submitted herself to the direction of her physician, she was bled in the foot; a mixture of cream of tartar, sulphur, and chamomile infusion was taken; the feet were frequently immersed in warm water; and the lower part of the abdomen was rubbed with stimulating liniments.

For several months Dr. Ebermaier entirely lost sight of her. He was informed that she was relieved for a short time by the above treatment, but that all the symptoms then returned with their original severity. She was still able to perform her domestic duties, but was incapable of working in the field, on account of the pain she experienced in bending her body. Pressure did not increase the pain she complained of in the epigastrium. She every day carried milk and vegetables the distance of a mile, without inconvenience. The menses had not appeared. Frequently and irregularly spontaneous and easy vomiting took place, two or three hours after she had taken food.

At the end of about seven weeks she died suddenly, to the astonishment of Dr. E., who had still viewed her malady with little apprehension.

Until the day of her death she continued lively in spirit, and capable of performing moderate labour. She rose early, took a little bread and coffee, and went into the garden to gather fruit,

which she was to carry to market. She was in the act of stooping, when she suddenly screamed out, with great anxiety, "I am dying," and fell apparently expiring in the greatest torture. Her hands and feet became cold; she complained of excessive pain in the belly; the thirst was inextinguishable, and her general restlessness and anxiety very distressing. There was now no disposition to vomit. She died in a short time.

Upon examining the body, a considerable quantity of fluid was found in the abdomen. In the stomach was found a regularly formed hole, on the anterior part, through which the contents had of course escaped into the abdomen, together with the large quantity of water the patient had taken during the last hours of her existence. Around this aperture there was not the slightest appearance of inflammation, redness, suppuration, ulceration, or erosion; nor any organic lesion whatever. The internal margin of the orifice was perfectly smooth, and the surrounding parts as free from any morbid appearance as the external. The hole, in fact, presented the same appearance as one which would be made in a piece of leather with a punch.\*

CASE II.—A man, fifty years of age, of a sanguine and bilious temperament, had complained, every two or three months for the last five years, of pains in the belly. He died suddenly. On the right anterior surface of the stomach, a hole, about the size of a two-franc piece, with callous edges, was found. In the small intestines were observed several gangrenous spots. It was ascertained that, five years before the commencement of the symptoms under which he had laboured, he had received a severe blow from the pommel of a saddle on the epigastric region.

CASE III.—A girl, fifteen years old, had suffered for two or three years from slight pains in the belly. As her sufferings increased, medical assistance was sought for. She was found to have all the symptoms of enteritis; the face was pale and anxious; urine small in quantity, and of a deep colour. Bowels constipated. The patient could assign no cause for the attack. Some years before she had had a similar attack, and since this time she had been occasionally subject to pains in the stomach.—Ten ounces of blood were taken. A clyster with castor-oil was administered, and emollient fomentations applied to the abdomen. She died in half an hour.

*Appearances post-mortem.*—The omentum adhered to the peritoneum, and at different points to the intestines. The abdomen

\* It is worthy of remark, that precisely the same description of a perforation found in the stomach, has been given by Mr. GRIFFITHS, in his account of a somewhat similar case. His words are, "the perforation looked much as if it had been made with a punch." Vide *London Medical and Physical Journal* for April 1825, p. 289.—In the case related by Mr. Griffiths, the patient had suffered from previous illness for two months; she was attacked suddenly, after eating a hearty breakfast, with great pain in the belly, and died in a few hours.—EDITORS.

contained a good deal of serous fluid, mixed with coagulable lymph. Throughout the small intestines there were traces of inflammation. The large intestines were also slightly inflamed in different parts, and much distended with air. The liver was smaller and paler than usual. The stomach was empty, and inflamed in different spots. Near the cardiac extremity a circular hole was found, of about nine lines in diameter: its edges were smooth and regular. At the opposite side of the stomach there was another perforation, of an oblong form, but not passing entirely through the external membrane. It appeared as if it had been once completely perforated, but that the orifice had subsequently closed.

**CASE IV.**—A robust man was attacked with a fixed pain in the epigastrium, accompanied by so distressing a throbbing that he was twice bled. After his meals, he vomited both solid and liquid food. For a long time he confined himself to a very light diet, but without any benefit. For a considerable period he suffered from attacks of fever, the pain and vomiting still continuing. He was frequently bled. He at length threw up a considerable quantity of blood, mingled with pieces of substance, some resembling liver, and others like fragments of the villous coat of the stomach. For about three weeks he went on with occasional variations in the severity of his symptoms, when, after a very severe accession of pain and vomiting, he fell a sacrifice to the disease.

Upon examination, the abdominal viscera were found swimming in a mixture of oil and other liquids which the patient had taken. The stomach was free from adhesions to any of the surrounding parts, and without any traces of inflammation. On the right and anterior part of the small curvature a round hole was perceived, about six or seven lines in diameter. The interior of the stomach was perfectly free from any traces of inflammation. The internal orifice of the perforation was much larger than the external. The edges, examined with the finger, appeared hard, solid, and of a cartilaginous nature.

**CASE V.**—A man, twenty-eight years of age, had been frequently troubled, during his youth, with affections of his stomach, which had been attributed to worms. For many years he enjoyed an apparently good state of health. Without any previous indisposition, he was attacked suddenly one evening with violent pain in the belly, which almost bent him double. He was carried home on a board, and threw up from his stomach some bread and wine which he had taken in the morning. A similar mode of treatment was adopted to that in the above cases, but without effect. He died in a few hours.

*Appearances on dissection.*—The contents of the stomach had escaped into the abdomen. At the small curvature of the stomach, about an inch from the pylorus, a hole was found, about a line and a half in diameter, and rounded as if it had been made

with a punch. This hole was surrounded by a red circle. The interior of the stomach, and every other organ, were perfectly healthy.

CASE VI.—DESGRANGES attended a woman who for four years had been subject to pains in the stomach, from the severity of which she at length died. She never vomited. A similar aperture was found in the stomach to that above described. In other respects the stomach was perfectly healthy. The intestines were slightly inflamed.

CASE VII.—A man had been subject for a considerable time to pains in the stomach. He had sometimes long intervals of ease. He gradually emaciated. Vomiting took place; and, after great and tedious suffering, he died. The pylorus was found in a scirrhous state. Two apertures were seen in the stomach, one an inch in diameter, the other much smaller. There was no appearance of inflammation in any part.\*

For many reasons, this communication of Dr. Ebermaier's demands our strictest attention. In the first place, it is of course desirable that all similar cases should be recorded, that we may be enabled, if possible, to establish a diagnosis of so formidable a malady, the symptoms of which, in many cases, unfortunately so much resemble a violent attack of spasm, that the practitioner may easily be led to adopt a mode of treatment which cannot but be prejudicial. The sudden and violent manner, also, in which the patient is not unfrequently attacked and destroyed, may excite suspicions that some poisonous article has been administered; and the most lamentable consequences may ensue, if the medical attendant is not aware of the frequent occurrence of such cases. A case in point occurred in France in 1818. A woman was attacked with violent pains in the stomach, and general symptoms of illness, after having walked some distance on a very sultry day. She had taken no refreshment whatever until her return home, when she partook of a light meal with her husband and some friends. From the commencement of the attack, she was tormented with raging thirst; she had frequent stools, accompanied with great pain in the bowels. She did not vomit. Upon examination post mortem, the stomach was found to be in a state of inflammation, and there was every appearance of some violent caustic having been applied. In some parts the coats of the stomach were entirely destroyed. The pyloric portion was of a deep

\* For much additional information upon this very interesting, and as yet obscure subject, our readers may consult the *Dictionnaire des Sciences Med.* tome xvi. p. 314, art. *Perforation*, illustrated by plates.

brown colour, and contracted. After this examination, Dr. R. declared it to be his opinion that poison had been administered. The same opinion was also given by several physicians and surgeons, who were consulted. It was determined that the destruction of the stomach must have arisen from some caustic material, *for that no disease could destroy so large a portion of living animal substance.* CHAUSSIER was fortunately called upon for his opinion: he very properly deprecated the rash and ignorant decision of his brethren, who had made no attempt to prove the presence of poisonous matter. He stated that the same appearances, and the same sudden accession of symptoms, frequently occurred from internal disease. The husband of the woman was consequently acquitted. There was not the slightest grounds for suspicion in this case, excepting the manner in which the woman had been attacked, and the destruction of the stomach which was detected upon examination after death.

We not unfrequently find a partial, or even general, destruction of the stomach, in young children. The symptoms that exist during life in these cases sometimes clearly indicate disease of the stomach and bowels; but almost as frequently they are very obscure, and do not point out any derangement of the digestive organs. In these instances the aperture found in the stomach is very different from that described in the above paper. The edges are ragged, and the whole of the stomach is usually soft and pulpy to the feel. Various parts of the intestines also are generally found to have lost their natural firmness, and are torn if but slightly handled. A very instructive paper has been published by Dr. GAIRDNER upon this subject in the Transactions of the Med.-Chirurgical Society of Edinburgh, 1824. A paper was also published by Mr. NORTH in our Journal for December 1824, upon the same subject.

By Mr. HUNTER, and many other authorities, this destruction of the stomach has been presumed to arise from the action of the gastric juice. We doubt the accuracy of this explanation. Mr. Hunter was led to adopt this opinion from finding these appearances in the stomach where the subject had died suddenly, and where he presumed the gastric juice still retained its activity, and that, consequently, the process of digestion went on after death; while the stomach, being dead, was no longer capable of resisting the powers of that menstruum which itself had effected the digestion of food. But it will be seen, by a reference to the papers we have just mentioned, that most of the children in whom this destruction of the stomach was found had long laboured under very tedi-

ous and debilitating diseases. To these cases, then, Mr. Hunter's explanation cannot apply.

Mr. PAXTON observes,\* "We have been in the habit of examining a great number of animals at different periods after death, and most of them carnivorous, whose gastric secretion is more active than that of the human stomach in dissolving animal matter; yet in these we never could find any erosion of the coats of the stomach, which must have been the case if it were possible for the gastric juice to have such effects. We consider the stomach, therefore, to be equally insensible to its presence in life or in death."

In a case which was published in the Medical Repository for August 1815, about half the cardiac portion of the stomach was found to be completely destroyed. The preparation was presented to Mr. BROOKES. The child had long been in a very feeble state of health, and at last died in a complete state of marasmus. In such a case there could be no reason for presuming that the gastric juice possessed any unusual activity: on the contrary, its powers must have been weakened in proportion to the debility of the viscus which secreted it.—EDITORS.

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#### HEREDITARY HEMORRHAGE.

*Observations on Hereditary Hemorrhage.* By REYNELL  
COATES, M.D.†

THERE are several families, in various parts of the United States, affected with a singular predisposition to hemorrhage from very trivial injuries. Dr. OTTO, of this city, has written a paper, which will be found in the sixth volume of the New York Medical Repository, giving an account of this idiosyncrasy, as displayed in the descendants of a Mrs. Smith, who settled in the vicinity of Portsmouth, N. H., about eighty years previous to the date of his communication. Nearly all the male progeny of this lady were subject to dangerous, and often fatal, hemorrhage from the slightest wounds or scratches, nor could the most enlightened professional skill suggest any effective remedy, until it was accidentally discovered that the sulphate of soda exercised a control over these cases, as unaccountable as the affection itself.

The females of the family never exhibited this predisposition, although they transmitted it to their male issue. Those who were affected were robust men of a choleric disposition,

\* PALEY's Natural Theology, illustrated by Plates and explanatory Notes, by JAMES PAXTON.

† North American Medical and Surgical Journal.

and many of their neighbours supposed that they could distinguish the "bleeders," as they were called, by certain peculiarities of personal appearance.

Another paper, by the same gentleman, published in Coxe's Medical Museum, vol. i., contains the particulars of the fate of four sons of Mr. Benjamin Binny, in Maryland; the first of whom lost his life by a hemorrhage, occasioned by the "kick of a horse over the eyebrow;" the second, from "the fall of a brick on the forefinger while at play; the third, from "a cut over the eye from the swing of a gate as he was passing through; and the fourth, who was subject to frequent attacks of epistaxis, fell a victim, in early life, to dropsy, consequent to the loss of blood. Physicians attended each of them, but to no purpose. The females of this family also were exempt from the affection.

Dr. OTTO mentions that Dr. RUSH was twice consulted in cases of the same hereditary tendency. Dr. PHYSICK recently informed me that he had attended a patient, about thirty years ago, in whom a slight cut upon the knee produced a very obstinate hemorrhage, of a singular character; and I have lately been informed of two other families, one in Pennsylvania, and the other in Georgia, in which this idiosyncrasy is strongly marked.

These instances are sufficiently numerous to render the history of the disease highly interesting to those practitioners who reside in the neighbourhoods where it prevails; and to such I hope the following case, in which I was recently consulted, will prove worthy of perusal. If the details of treatment should be considered unnecessarily minute, I must rest my apology upon the desire to avoid that careless and generalising style of description which renders too many reports of this character altogether useless to those who appeal directly to facts, and who are unwilling to place implicit confidence in the deductions of others.

R. W., a young gentleman from Delaware county, Pennsylvania, a member of the medical class, was the first of his family to display the idiosyncrasy which is the subject of the present paper. His frame is vigorous, and he has every appearance of health.

His sister has never exhibited any uncommon disposition to hemorrhage, but among her children the following cases have occurred: A child, aged about eighteen months, fell, and ruptured the frænum of the upper lip. Two of the most respectable practitioners of the neighbourhood exerted themselves to save the patient, but in vain: he bled to death.

Another child, aged about fifteen months, met with the

same accident. Three physicians were consulted; but the hemorrhage continued until the third day after the injury, when the child was taken to Dr. GIDEON HUMPHREY, in a state of extreme exhaustion. This gentleman succeeded in arresting the bleeding by means of the actual cautery.

The same child, when nearly thirteen years of age, received a cut upon the forehead by a blow from a stone, and was attended by two practitioners, who employed the actual cautery freely, but without effect: the patient fell a victim to the hemorrhage.

These cases are mentioned by Dr. HUMPHREY, in the Medical Review for September 1824. The slight discrepancy between the statements contained in that paper and the account here given, is owing to the fact that the former was published from rough notes, taken long after the event occurred, and not intended to meet the public eye; while the latter has been corrected by referring anew to Dr. H., and also to the family affected.

Dr. H. has since narrated to me two other cases in the same family. In the first case, which occurred in the brother of the children already mentioned, a slight contusion of the scrotum produced an enormous extravasation in the cellular tissue; and, in the second, a wound of the thumb was followed by bleeding for several days. The shower bath suddenly arrested the hemorrhage.

R. W., the gentleman above mentioned, received a cut from a penknife on the forefinger, when about eleven years of age. The wound continued to bleed without intermission; and on the fifth day after the accident Dr. Humphrey was consulted. He applied a compress and bandage "sufficiently tight to stop the discharge;" but on the following day he found the finger considerably inflamed, and the hand and forearm distended with extravasated blood. On removing the compress, the blood again flowed from the wound. The Doctor then applied remedies to combat the local inflammation, and continued them for a few days. The bleeding, however, did not cease, and the patient being in an extremely exhausted condition, the actual cautery was applied with complete success.

In the autumn of the same year, Mr. W. had a molar tooth extracted. Blood continued to ooze from the gum for many days; nor was the hemorrhage checked until the actual cautery was liberally employed as a last resort.

I shall now proceed to give the details of another similar attack, occurring to the same gentleman, when twenty-four years of age, as extracted from my case-book:

22d December, 1827, five o'clock P.M.—I was requested by Mr. (now Dr.) SPACKMAN to visit Mr. W., who had a tooth extracted



by a dentist the day before. The patient and his friends informed me that the hemorrhage following the operation was so profuse, and of so long continuance, that the dentist (at the request of Mr. W.) applied the actual cautery, but without success. Mr. Spackman took charge of the case at ten o'clock A.M.; but, being unable to check the discharge, he thought it advisable to call in additional aid.

The patient had lost at this time about half a gallon of blood. The measures resorted to by Mr. S. were as follows:

1st. The sulphate of copper was applied, in the solid form, to the bottom of the socket, without effect.

2d. A piece of cork, adapted to the form of the cavity, and wet with a strong solution of the same salt, was employed as a compress, with no better success.

3d. The cavity was plugged with lint, but without any benefit.

4th. A saturated solution of the sulphate of alumina was employed as a gargle; but this did not arrest the bleeding.

5th. A piece of sponge, imbued with this solution, was employed as a compress; a piece of cork was applied over it, and pressure was made by means of Barton's jaw bandage. This apparatus arrested the hemorrhage, but it returned in four hours.

6th. Dry sponge, covered with powdered sulphate of alumina, was applied, and secured in the same manner. This application lessened the amount of discharge considerably, but did not entirely check it.

At the time of my visit, I found Mr. W. weak and pale, with a pulse small and frequent, but quite mild. His stomach was irritable. The bleeding at this time being slight, I did not think proper to advise the removal of the dressings; but recommended that the patient should be kept cool and quiet, in the hope that the hemorrhage might cease, without obliging us to resort to more severe measures.

23d December.—I was called to Mr. W. in haste, at ten o'clock A.M., and found him bleeding profusely. The dressings were removed; and, in order finally to test the effect of pressure applied in the most careful manner, I proceeded to plug the cavity of the socket with dry lint, firmly impacted by means of a bent wire. Over this was placed a firm compress of lint, surmounted by a piece of cork, upon which the inferior jaw was strongly closed, by means of Barton's bandage. This apparatus totally suppressed the discharge until after daylight, when it returned.

At ten o'clock A.M. the hemorrhage was very considerable. I reapplied the compresses, moistened with a saturated solution of sulphate of copper. The bleeding was rather less profuse for half an hour; but after this time it became even more copious than I had yet seen it.

At eleven o'clock, Mr. Spackman being present, we made a very careful examination of the wound, and discovered that no blood escaped from the socket of the tooth; but, on the contrary, that

the discharge took place from ~~the~~ angle of the incision made by the gum lancet, just within the tooth next adjoining, which was the first of the molares. The whole cheek and gum were much swelled and inflamed, in consequence of the pressure which had been employed; and there was some febrile action. The actual cautery was now applied to the bleeding surface, and the hemorrhage became instantly arrested. The patient was ordered to take a purge of the sulphate of magnesia immediately; to be followed by the acetate of lead and the nitrous powder,\* alternately exhibited.

At the request of the patient, Dr. Gideon Humphrey was called in consultation.

At three o'clock P.M. Dr. H. met us. The hemorrhage was very slight, and no change of measures was proposed. Dr. H. stated that, in all the cases occurring in this family, pressure invariably occasioned severe inflammation, without producing any benefit.

At eleven P.M. I found the hemorrhage as profuse as ever. I reapplied the cautery freely, and checked the discharge.

26th December.—I did not see the patient on the 24th or 25th, concluding that, as I had not been sent for, the case had terminated favorably. Mr. Spackman, however, informed me that the hemorrhage had recurred on the morning of the 26th, and continued without intermission, notwithstanding the application of almost every styptic which suggested itself to Mr. W. and his attendants. Most of the remedies appeared to lessen the flow for a short interval, but their ulterior effect was rather to increase it.

At ten o'clock this morning I called, and found the patient absent. Weak as he was, he walked to Dr. H.'s office, where the cautery was again applied very freely to the inner flap, the bleeding being confined to that part only. The discharge was again checked, but returned as violently as ever on his arrival at his own residence. The cautery was frequently reapplied by myself and others during the day and night, but without permanent advantage.

27th December.—The consultation met at ten o'clock A.M. The local inflammation had in a great degree subsided. Mr. Spackman stated to us that, at one A.M., Mr. W. had been attacked with vomiting, purging, and considerable pain about the colon. With a view to relieve these symptoms, Mr. S. exhibited Calomel grs. iij. cum Pulv. Opii gr. j., and directed Tinct. Opii gtt. xxx. quâque tertiâ horâ sumend.

The patient was now free from fever, and the purging had ceased, but the stomach continued irritable. This symptom was relieved by a spice plaster to the epigastrium, and a Seidlitz powder, which operated freely. The hemorrhage was very profuse, and the patient extremely exhausted.—Tinct. Opii continued.

\* The nitrous powder contains Nitr. Potass. grs. x. with Tart. Antimon. gr. 1-6th. It is a formula employed in the practice of the Pennsylvania Hospital.

It was resolved today to make a final conclusive trial of the cautery, under the idea that some portion of the flap might have escaped contact with the iron. I therefore proceeded to destroy, by this means, not only the wounded surface, but the whole thickness of the gum and surface of the socket. The blood continued to ooze rapidly through the substance of the slough, and, about an hour after the application of the iron, I distinctly saw the hemorrhage proceeding from the surface of the uninjured gum, at some distance from the sloughs. This exudation continued for a short time only.

At the request of the friends of the patient, Dr. J. R. BARTON was invited to join us in consultation.

At two P.M. the consultation met. Hemorrhage considerable. The blood contained very little fibrin. The patient was exceedingly pale, and his pulse very weak, but perfectly mild. The amount of discharge since the commencement of the case certainly exceeds two gallons. It was agreed that a nourishing diet had become indispensable: he was, therefore, ordered to take plentifully of soups and jellies; eggs were also allowed him. Port wine was directed to be given pretty freely; and the spirit of turpentine was prescribed, fifteen drops to be taken every two hours.

At six P.M. I called. Mr. W. had taken about half a pint of port wine. The spirit of turpentine was immediately rejected from the stomach. The patient had considerable fever, with some stupor and pain in the head. The port wine and turpentine were therefore omitted, and gruels and beaten eggs directed to be taken freely: mustard plasters were applied to the feet. During the following night the hemorrhage declined, and ceased entirely for an hour after a warm breakfast.

28th December.—At ten A.M. the consultation met. Dr. Humphrey absent. The patient was free from fever, and the bleeding not very profuse. The exhibition of port wine was renewed, and Huxham's tincture of bark was prescribed.

Twelve P.M.—Found considerable fever, the pulse beating 122 strokes in a minute, and the hemorrhage profuse. Applied the muriated tincture of iron, and, at the earnest desire of the friends, permitted the application of a popular remedy, the oil obtained from burnt linen. Both these articles lessened the discharge for a short time, but ultimately produced an exacerbation. The compound tincture of bark being invariably rejected, its exhibition was discontinued.

29th December.—At eleven A.M. the consultation met. Mr. W. informed us that the hemorrhage had not abated until he had taken breakfast, after which it had stopped for half an hour. At the time of our visit it was considerable. The fever had somewhat abated; pulse 115. Notwithstanding the free purging which followed the exhibition of calomel two days before, a strong mercurial odour was perceptible in the patient's breath.

Ordered Sulph. Quinæ gr. j. q. tertiâ hor. sum., et Tinct. Ferri gtt. v. q. hor. sum.—Tinct. Opii continued.

At the desire of the friends of the patient, Dr. PHYSICK was requested to join us in consultation.

At four P.M. Dr. P. and myself met, the other gentlemen being absent. One important indication in the treatment of hemorrhages from the mouth in general was suggested by Dr. P. He stated that he had met with instances of extreme exhaustion from bleeding, consequent to operations in that cavity, and which continued after all the remedies usually resorted to had been employed to no purpose. These discharges he supposed might be kept up by the suction unavoidably attendant upon the effort to swallow, and were to be arrested by keeping the mouth permanently open.

In order to answer this indication as completely as possible in Mr. W.'s case, a plug of wood was introduced between the molar teeth, and he was ordered to receive nourishment through the stomach tube. He was also confined to a sitting posture; and, in order to ascertain whether the coagulation of the blood upon its exit would not prove serviceable, when aided by the means just mentioned, it was directed that a slight pledgit of common spunk should be kept in contact with the bleeding surface.

The introduction of the stomach tube was strongly resisted by the patient, under the impression that some injury might be sustained by the œsophagus, in which a second hemorrhage, less accessible, and consequently more unmanageable, might result.

At one P.M. the bleeding continued unchecked, notwithstanding the introduction of the plug, which the patient was compelled to remove in about an hour, in consequence of the nausea occasioned by its presence. He took one egg beaten up with sugar and water, and this was his only sustenance for twenty-four hours.

At eleven P.M. I reapplied the plug, but the extreme irritability of the fauces rendered its presence intolerable, and Mr. W. removed it at one o'clock A.M. He then continued to hold spirit of turpentine in his mouth for some hours, at his own suggestion, but this increased the hemorrhage very considerably.

Dec. 30th.—At ten A.M. we met. We were informed that the patient had taken plentifully of warm tea for breakfast, after which the hemorrhage was much diminished for some time. The mercurial odour could no longer be detected in the breath.

At four P.M. Mr. Spackman, having procured some spunk, introduced a wedge-shaped plug between the molares of the injured side, surmounted by a pledgit of that article, according to the directions of yesterday. The hemorrhage, although somewhat lessened for a short interval, ultimately became still more violent. I afterwards carefully reapplied the same apparatus, with a similar result.

The patient was soon afterwards attacked with vomiting and purging. Mr. Spackman exhibited laudanum freely, and these symptoms were soon relieved. He then reapplied the plug, with

temporary benefit; but Mr. (now Dr.) TEMPLE, in whose charge the case was placed for the night, states that the bleeding became very profuse in a short time. At three o'clock A.M. efforts to vomit rendered it necessary to remove the plug. The patient was now extremely weak, having nearly fainted on attempting to rise. After the final removal of all local applications, the hemorrhage ceased in a little while, and did not again return until five P.M.

Dec. 31st.—At ten A.M. we again met, all the gentlemen being present. The patient had taken plentifully of rice broths, rice pudding, and other nutritious articles not requiring mastication. This diet was ordered to be continued. He was directed to prevent the entire closure of the teeth, but not of the lips, by inserting a small piece of cork between the incisors. The amount of Tinct. Opii was reduced to gtt. xxx. every four hours. At five P.M. the hemorrhage returned, after a slight febrile paroxysm, accompanied by chilliness and headache. It continued to flow gently until three o'clock in the morning.

1st January, 1828.—In the afternoon of this day there was a slight return of bleeding, which continued two hours; and then finally ceased. The whole amount of blood lost during the progress of the case cannot be estimated at less than three gallons.

It is proper here to remark that Mr. W. has received several wounds from the sickle, while engaged upon his father's farm. One of these, which was a severe and deep cut upon the hand, produced no unusual discharge of blood; but several others, of less extent, required the application of the actual cautery. The slight scratches occasionally inflicted by the razor seldom caused any trouble.

(To be continued.)

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#### CATALEPSY.

*Case of Catalepsy combined with Mania.* By JOS. CANHAM, M.D.

IN one of the late fasciculi [fasc. iv. of No. 18,] of the *Medico-Chirurgical Review*, I find detailed a curious case of catalepsy connected with mania. The only case of the disease I ever saw was likewise combined with mania. I am sorry that, from not being able to find the notes I took of the case, I cannot give you as minute an account of it as I wish.

B. M., aged about twenty, (apprentice to his father, a bricklayer,) became deranged, and in a few days was sent to St. Luke's, where he remained a year, and was then discharged, and placed by his friends in Warburton's asylum. In a few weeks his friends took him home. Two days after his return to Stevenage (where I then resided), he was, during dinner, suddenly attacked with catalepsy. When I saw him, which was almost immediately, he sat perfectly motion-

less; his eyes open and immovable; vision apparently lost, as he would allow a finger to be placed upon the eye without closing the eyelids; insensible to sound; face and hands quite pale, having the appearance of white wax; temperature much reduced; pulse at the wrist not to be felt. Upon an attempt being made to abstract blood, to the surprise of every one present, the arm, upon being raised, retained that position after the hand which had supported it was removed. One leg was now placed at right angles with the trunk: it would not retain this position, but, upon being placed about a foot from the ground, remained there, the patient being seated upon a chair of the usual height. He was now carried to bed, having every appearance of a dead man. I could not see that he breathed, but, upon applying the hand to the chest, a slight motion of the ribs was perceptible.

A very small quantity of blood was procured from the arm, not more than an ounce, (he did not appear to feel the incision with the lancet.) A few drops of ether, with camphorated mixture, was given him, but he made no effort to swallow. Flannels were heated and applied, and friction used, without producing any effect.

I saw him every two hours from the time I first visited him, which was about two P.M. Until twelve, he remained without any change. He was likewise seen by Mr. JONES, who was then practising at Stevenage.

Early the following morning, he was in the same state, and had remained so during the night, according to the account of his brother and those who sat up with him. At about nine o'clock, a slight perspiration appeared on the face, which increased to a most profuse sweat over the whole body, and he shortly afterwards turned in bed, and soon spoke.—The excretions of urine, &c. were suppressed during the continuance of the cataleptic symptoms.

He now became morose and melancholy, which was the state he was in prior to this attack. I saw him for some days afterwards, and he continued in this state.

About six months afterwards, I was sent for to see him: he had then, without any interference of art, regained his intellect, but was lame from the nails of the great toes having penetrated the skin on each side. When these were cured by the application of caustic, he returned to work.

It is about three years since the attack of catalepsy, and he is now perfectly well, as I heard of him very lately. His father was several times insane.

*Ramsgate; September 14th, 1828.*

## HOSPITAL REPORTS,

*(Principally condensed from various Periodical Publications.)*

## UNUNITED FRACTURES.

*Cases of Ununited Fractures, treated at the ROYAL INFIRMARY OF EDINBURGH.\**

AMONGST the numerous cases of fracture which always constitute a large share of our materials for clinical observation, you have had an opportunity, during the present course, of seeing two remarkable cases; in one of which the process of reunion has been excessively slow, and in the other altogether suspended.

The first of these patients, Donald Clark, aged seventy-two, was admitted on the 26th March under my care, having sustained a fracture of the leg, described in the journal as follows:

"The tibia is fractured about one inch and a half below its tubercle; and again, two inches lower down, the intermediate portion of bone is loose and moveable; the fibula is broken nearly opposite to the lower fracture of the tibia. Injury was the consequence of his leg having been pressed between a coal-cart and a wall.

"Limb was placed on M'Intyre's splint, with a pasteboard splint on either side, firmly confined with a roller.

"May 10.—Upper fracture has united, but lower one crepitates distinctly when the limb is moved. To have beef, porter, &c.

"June 1.—No crepitus; but still great mobility at the seat of the lower fracture.

"26.—To sit up every day, and walk upon crutches.

"July 12.—Mobility has decreased considerably. Dismissed relieved."

This man has been visited by the house-surgeon today, who reports that the union of the tibia, although still incomplete, has of late been advancing by slow degrees. The fractured extremities of the bone are, and have all along been, in perfect apposition; the intermediate portion between the two fractures has preserved its vitality, and I can see no circumstance which should have prevented the more speedy reunion of the lower fracture, except the defects of a constitution which has all the appearance of having been impaired by hard labour, and the accession of a premature rather than an extreme old age. The limb was firmly secured in pasteboard splints, and the patient dismissed with an injunction to move as much as possible with the aid of crutches, for the purpose of exciting action in the fractured part of the limb.

This is a case, in my opinion, ill calculated for the adop-

\* From Dr. BALLINGALL's Clinical Lecture, July 1828.

tion of any of those expedients which surgery holds out for the treatment of cases of this kind. When union has been retarded, as in this instance, from a general defect in the habit, we have no reason to expect that such expedients would succeed: the man's constitution cannot be improved by four months' confinement in the hospital.

The other case of ununited fracture is that of Thomas Christie, aged forty-one, a patient of Mr. LISTON's, who was admitted on the 9th of June, and stated "that six weeks ago, when at work down a pit, a piece of wood fell and struck him upon the arm, which was fractured. A good deal of swelling and inflammation of the arm succeeded, for which he was once bled from the arm, and at different times had leeches applied, to the number of eighty. Three weeks after the accident, splints were applied, which he says were repeatedly obliged to be removed, on account of the swelling and inflammation.

There is a transverse fracture of the humerus four inches above the elbow. The ends of the bone overlap each other, the lower portion going in front: not the slightest union has taken place, and the ends of the bone cannot be brought into apposition when extension is used; general health good. The arm, since the accident, has been kept in a bent position."

On the 12th, "the forearm was tightly bandaged with a flannel roller; a pasteboard splint was applied on the outer and inner side of the arm, and a wooden splint applied firmly on the outside over all." The patient was ordered a beef-steak and a bottle of porter daily; and the splints were continued on the arm until the 30th, when the following report is entered:

"No union has taken place; the bones are as loose, seem to have the same motion, and to remain at as great a distance from each other. Mr. Liston removed a portion of the broken extremity of each bone, by cutting them somewhat obliquely. A splint was applied on the inner side of the arm, and which supported the whole of the forearm; a short splint was applied on the outside. Complains of pain at elbow; passed a quiet night; not much sleep; bowels not open; tongue rather loaded; pulse ninety-six; skin cold; not much pain in the wound."

A considerable degree of swelling and tension followed the operation, which rendered it necessary to remove the outer splint. A great part of the wound at either extremity healed by the first intention, the centre of it being kept open for some time by the discharge of a collection of matter which formed over the region of the biceps muscle. The whole wound is now nearly cicatrised, and the case wore a very promising appearance until within these few days, when the patient met with a most untoward accident by falling out of bed during sleep, by which the process of reunion has no doubt been disturbed, but it is to be hoped will not ultimately be prevented.



In speaking of this case, I noticed a number of others in which this operation had been practised with various degrees of success: I fear, however, that I omitted to mention, or to give you a reference to two interesting cases treated some years ago in this house, one by the late Dr. WARDROP, and the other by my colleague Dr. INGLIS. Of these two cases you will find the particulars detailed in the first volume of the Edinburgh Medical and Surgical Journal; and what renders them the more remarkable is, that in both instances union was procured, although the fracture existed in the one case in the forearm, and in the other in the leg; situations in which BOYER and other eminent surgeons had altogether discountenanced the performance of this operation.

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#### CHRONIC AFFECTIONS OF THE JOINTS.

##### *Cases of Chronic Affections of the Joints, treated at the ROYAL INFIRMARY OF EDINBURGH.\**

IN the case of Thomas Sprunt, aged thirty-nine, who was admitted on the 5th of May, you had an example of caries and ulceration of the ankle-joint, of which the history is detailed in the following report:

“A little in front of the right malleolus externus, there is the orifice of a sinus which runs underneath the extensor tendons, and terminates by another opening a little below the inner malleolus: from both of these orifices the probe may be passed into the articulation of the astragalus and tibia, the articulating surfaces of which bones are felt rough; discharge copious, but healthy; the motions of the joint are very confined, and the surrounding parts much swelled and slightly inflamed. General health pretty good; pulse 100; tongue a little furred; slight sweating; bowels rather costive.

“Twenty-six years ago was affected apparently with necrosis of the tibia, which bone is evidently much enlarged. Nine years ago was first attacked with his present complaints, from which he recovered completely in five months, and continued perfectly well until within six months of the present date, when he again relapsed after exposure to cold and wet.”

This was a case in which, considering all its circumstances, no reasonable prospect of relief could be held out from any milder means, and, the man having come prepared for the removal of his leg, it was amputated by the single flap operation, two or three days after his admission.

You saw that in this case I had some difficulty in securing the blood-vessels: the tibial arteries were cut across, just at the point where they spring from the popliteal, and were

\* Ibid.

found firmly imbedded in the condensed cellular membrane, adhering to the bone, so that it was necessary to separate them with a scalpel from the posterior surface of the tibia, before I could surround the vessels with a ligature: the parts were obviously much altered in consequence of the pre-existence of inflammatory action in the course of the tibia, and the state of the bone itself was far from being satisfactory. It afforded a remarkable contrast to the state of the radius and ulna, in Gardiner's forearm, which I had amputated only a few minutes before: there the bones possessed the sound and healthy tint with which every surgeon is familiar, and the blood oozed freely from their cut surfaces. In Sprent's case, on the contrary, the tibia was dry, of a deadly whiteness, and not a particle of blood or of marrow oozing from its cut surface. This led me to fear that I had erred in amputating below the knee: the result, however, proved highly satisfactory; the stump healed kindly, although slowly, and the patient left the hospital full of gratitude, expressing his satisfaction at having exchanged his diseased leg for a wooden one.

This man's leg and ankle were exhibited to you immediately after the operation, and I have now again the pleasure of shewing you the bones in an advanced, although not in a complete, state of preparation: the bones of the tarsus, and particularly the astragalus, although somewhat softened, and in some points deprived of their cartilages, are, upon the whole, much less diseased than I expected to find them. The tibia appears to have been the seat of long standing and inveterate disease: this bone is enlarged throughout its whole length, but more particularly at its extremities; and, on laying it open by a longitudinal section, you observe its whole medullary cavity occupied by osseous deposition. This internal structure has been, in several places, the seat of caries, or perhaps I should rather say of internal abscesses: a small one is observable just at the point where the bone was cut across in removing the limb, another immediately below this point, a third towards the middle of the bone, and a fourth very large cavity is situated in the distal extremity of the tibia, immediately above its junction with the astragalus: this cavity, in the recent state, contained a quantity of purulent matter. It opens in front by a circular aperture immediately over the ankle-joint; and it was, I suspect, into this opening that the probe passed when I conceived it to be going into the cavity of the joint: on the posterior surface of the bone, nearly opposite to the seat of this abscess, you will find some adventitious deposition of ossific matter in a stalactitic form.

The fibula scarcely presents any thing worthy of notice : its lower extremity is divested of its articular cartilage, and apparently roughened ; but whether this is the effect of disease or of maceration, is not very easily determined.

During the present course, several instances of the *Morbus Coxarius*, or disease of the hip-joint, have fallen under your observation in various stages of its progress.

In the case of Mary Robertson, aged twelve, a patient of mine, you had an opportunity of seeing this affection in an incipient state, of which the following circumstances were symptomatic : "Complaints of pain inside the left thigh and knee, much increased by exercise ; the limb is slightly elongated, apparently from inclination of the pelvis to the same side ; the buttock is flatter than the opposite one ; the thigh is a little inclined forwards, and the fold between it and the buttock is very indistinctly marked. All the motions of the limb are much impaired, but chiefly extension and flexion, more particularly the latter ; pulse 120 ; some sweating ; tongue furred ; skin at present cool ; appetite good. Complaints are of three weeks' duration, and began without evident cause."

This little girl was greatly relieved by leeching, anodyne fomentation, and confinement to the horizontal posture ; and, after having been about six weeks under treatment, she left the hospital on the 21st of June, apparently free from disease.

In the case of Elizabeth Orrock, aged seventeen, a patient on Dr. HUNTER's side of the house, the disease was further advanced and better marked. This girl stated, "that about eight months ago she began to feel some pain and stiffness in right hip-joint, which has been gradually increasing till within a month, since which time it has been increasing more rapidly. Pressure over the trochanter, or the motion of the joint, causes great pain. There appears to be a slight curvature of the spine in the lower dorsal vertebræ towards the left side. The anterior superior spinous process of ilium appears somewhat higher on left side than on right. The right leg appears elongated for about one and a half inch ; the toes are everted ; there does not appear any swelling or redness about joint ; the limb lies easiest in the extended position ; has at times throbbing pain in joint ; no shivering ; catamenia natural ; general health good in every other respect."

This case was treated, in the first instance, by the application of leeches, several moxas being subsequently applied contiguous to the joint ; and, on the 13th instant, a blister was placed upon the groin and interior part of the thigh, by which means she has been partially relieved.

With reference to the two last-mentioned cases, I offered you some extended observations on the hip disease, which, from its frequent occurrence and dangerous nature, becomes

one of much importance. I shewed you that the elongation of the limb, which is so marked a feature in the early stages of this affection, although it may be in some slight degree influenced by changes in the joint itself, by swelling of the cartilages, or effusion within the capsule, is in all cases, when it becomes so conspicuous as in Orrock's case, to be explained only by the oblique position which the pelvis assumes. From the tenderness of the affected joint, the patient is induced to throw the weight of his body upon the top of the sound thigh, while the affected limb is generally stretched out and thrown forwards, as a stay to prevent him from falling, and to assist him in progression. The pelvis is thus gradually, and almost imperceptibly, elevated on the sound side, while it drops proportionally on the diseased one; and this obliquity often continues to increase until the patient becomes bedridden, when we frequently find the limb shortened, and the position of the pelvis reversed. This appears to me to be in a great measure owing to a continued state of contraction in the *psoas magnus* muscle of the affected side, which, originating by different slips from the sides and transverse processes of the lumbar vertebræ, passes down to be inserted into the trochanter minor: its contraction, therefore, tends to approximate the transverse processes on the diseased side, and to give a lateral curvature to the lumbar portion of the spine. This is perhaps aided by the patient's lying for the most part on the sound side, resting upon the crest of the ilium, and thus pushing the pelvis towards the opposite side.

In more advanced stages of the disease, we have a shortening of the limb from circumstances less equivocal, and of which the explanation is abundantly obvious: such are the destruction of the ligaments, the absorption of the head of the bone, and consequent luxation of the joint; the absorption, in some instances, of the brim of the acetabulum, and in others of the bottom of this receptacle, with the consequent intrusion of the head of the bone into the cavity of the pelvis; of all which I shewed you examples.

Amongst other preparations illustrating the ravages of this disease, I shewed you an interesting, and perhaps an unique, specimen from Dr. KNOX's collection, which gives at once a view of all the consequences above enumerated.

Here you saw, on the right side, the acetabulum obliterated, and in its site a rough irregular surface, with scarcely any vestige of an articular cavity: the head of the thigh-bone, on this side, divested of its usual globular form, its surface rough, and the limits between it and the *cervix femoris* very indis-

tinctly marked. On the left side, the os innominatum is smaller than its opposite fellow; in the site of the acetabulum there is a complete breach or perforation in the bone, with some preternatural ossific deposit above it near the anterior and inferior spinous process of the ilium. The head and neck of the femur on this side have been completely absorbed as far down as the trochanter major: this process remains, and the intermediate portion of bone between it and the lesser trochanter is rough and quite irregular in its surface; below this point the femur is smooth, and shrunk in every dimension; and this wasting or atrophy extends to the other bones of the limb, the tibia and fibula being both shorter as well as smaller than their fellows of the opposite side. Of this singular preparation, I expect we will be furnished with a much more minute and perfect description in a work on the Pathology of the Bones, by Mr. BENJAMIN BELL, now in the press. The history of the subject from whom it was taken, a lad apparently about eighteen or twenty years of age, is unfortunately unknown. Dr. Knox has, however, very kindly offered me permission to take a sketch of this preparation, and I give it to you as a valuable and impressive memorandum of the nature and occasional consequences of this destructive disease.

In the treatment of the morbus coxarius, our object is to subdue the inflammatory action within the joint, and this we attempt, in the early and acute state of the disease, by the repeated application of leeches; and subsequently by the use of what are termed counter-irritants, blisters, moxas, caustic issues, and setons. This last class of remedies may perhaps be employed here with less equivocal effects, and with a better prospect of success, than in other joints more superficially covered, where it appears to me doubtful how far we can establish an inflammatory action on the surface without the risk of its extending to the interior. Whatever affords a rational prospect of relief ought to be employed with particular assiduity and perseverance in diseases of the hip-joint, because the removal of the limb, to which we often resort with success in the diseases of other joints, is here scarcely admissible, or at least its practice in this disease has not been encouraging. The excision of the head of the bone in some aggravated cases, where the articular apparatus has been destroyed and the joint dislocated, is, in my opinion, a much more promising operation; and I mentioned to you a very interesting case in which it was performed successfully by SCHMALZ, and which you will find detailed by HEDENUS of Dresden, in an excellent thesis, "*De Femore in Cavitate Cotyloidea amputando.*"

## OPERATION ON THE KNEE-JOINT.

*On the Removal of loose Substances from the Knee-Joint.* By CHARLES AVERILL, Esq., Surgeon to the CASUALTY HOSPITAL at Cheltenham.\*

PROBABLY there is no disease to which the knee-joint is subject which produces more excruciating pain, for short intervals, than that occasioned by cartilaginous or bony substances lying loose in its cavity.

The following observations, therefore, on the removal of these bodies, I trust, will not be considered unimportant, presuming that that object may be facilitated by the means they suggest.

When it is ascertained that one or more of these substances are lying loose in the cavity of the knee-joint, we have the choice of two modes of practice, which may be called the palliative and the curative. The former is the method proposed by the late Mr. HEY, of wearing a bandage, or laced knee-cap, so as to confine the substances in one spot, and thereby prevent its giving pain by getting between the extremities of the bones forming the joint. This practice, I should imagine, is not applicable to those cases in which there are two or more substances present; especially if they differ considerably in size, and if the patient's occupation subject him to hard labour or severe exertion. In such cases relief may be afforded by the operation of removing the substances; but this, from its necessarily laying open the joint, as well as from its having been, in some instances, unsuccessfully attempted, has always been considered a serious undertaking.

The only difficulty that, as far as I am informed, has been found in accomplishing the operation, even when there are two or more substances present, is to fix them, whilst the operator cuts into the joint, so that he may extract them readily after the incision is made. This difficulty, which is owing to the polished surfaces of the loose bodies, and the lubricating nature of the synovia favoring their slippery passage from one part of the joint to another, obliged the surgeon to relinquish the operation, even after he had cut into the joint, in a case of this kind, which was lately related to me by Mr. THOMAS CHRISTIE, an apprentice of Dr. BALLINGALL's, surgeon to the Royal Infirmary in Edinburgh. In this case the operation had been twice attempted, by different surgeons, without success; and the patient afterwards

\* The Midland Medical and Surgical Reporter, No. 1.

went into the Edinburgh Infirmary, where the substance was removed by Mr. ALLAN.

Aware of the above facts, I was induced to consider how I might obviate the difficulties I have stated, and have been gratified to find that I could do so by very simple means. When the patient, whose case is here introduced, came under my care, I procured an iron ring; and found, upon trial, that the loose substances in his knee-joint were to be readily fixed by it, so securely, in one spot, as to leave no doubt in my mind of their being easily extracted. The result will best appear in my notes of the case, which are as follows:

George Flück, aged thirty, by trade a gardener and nurseryman, was admitted into the Cheltenham Casualty Hospital, August 16, 1825, when he gave the following account of himself:

He had, for several years, thought there was a degree of weakness in his knees, particularly when he was carrying any heavy weight. Between two and three months since, after he had been kneeling for some time in the garden, at work, he was attacked with considerable inflammation and swelling in the left knee, for which he used an embrocation, and, when the swelling went down, he found there was a moveable substance in the joint. Shortly after he discovered a second. These at times caused excruciating pain, more particularly when he was walking down hill, or coming down stairs, so as to oblige him to sit down till the pain had subsided.

He had worn a bandage, by means of which he could fix the larger substance at the upper and outer part of the joint; but the smaller one could not be retained in any one place, and it was this which, from its motion, and from its getting between the ends of the bones, gave him pain.

At the time of his admission, both substances could be readily felt, and moved to different parts of the joint: one appeared to be about the size of a marble, flattened; the other considerably smaller.

He was recommended to submit to the operation of having them removed, to which he consented; and was therefore directed, by way of preparation, to take at night some pills of calomel and extract of colocynth, and some aperient medicine by day, for two or three days, and to eat no meat.

On the 19th, the operation was performed in the following manner: Both the substances being pushed to the upper and outer side of the joint, and the integuments drawn tightly over them towards one side,\* while the knee was kept straightened; the substances were fixed by means of the ring, which I held with my left hand, firmly pressed against the side of the outer condyle of

\* This was done to prevent the wound in the integuments being parallel to that in the capsular ligament.

the femur, thus rendering their escape back into the joint impossible. I then, with a common scalpel, made an incision, within the ring, through the integuments and capsular ligament, from above downwards into the joint; when the larger substance immediately fell out on the floor, and with my finger I tilted out the smaller one.\*

The operation was performed in less than a minute, and only about a drachm of synovia escaped. There was no bleeding of consequence. The lips of the wound were brought together by adhesive plaster, a bandage applied, and a long splint was fixed on the outside of the limb, to prevent the knee being bent. He was directed to keep quiet in bed, and to take a saline draught every three hours.

20th.—He has had a good night, and is free from pain.

22d.—The wound dressed, looking very healthy.

28th.—Sat up for an hour or two.

September 3d.—Discharged quite well.

In conclusion, I may be allowed to ask, whether the evils so much dreaded in the operation of removing loose cartilages from the joints may not, in all probability, have arisen from the excessive escape of synovia, and the irritation produced by unsuccessful attempts to squeeze out those substances at a wound made comparatively upon speculation; and whether, if they can be always certainly and securely fixed by the simple means I have employed, the operation be not thereby rendered sufficiently safe to authorise us to recommend it with confidence: at all events, where the bandage and knee-cap have failed to afford relief.

\* The substances removed appear to have been broken from each other; and to be composed in part of bone, which is imbedded in cartilage, surrounding it on the margin and on the whole of the under surface.



## CRITICAL ANALYSES.

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*Quæ laudanda foras, et quæ culpanda, viciis illa, prius, creta; mox hæc, carbone, notamus.*—PERSIUS.

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*A Compendium of the Diseases of the Human Eye; containing Descriptions and Explanations of the various Diseases, illustrated by Engravings, and accompanied by Practical Observations on their Treatment.* By ALEXANDER WATSON, Fellow of the Royal College of Surgeons, Edinburgh, &c. &c. &c. *Second Edition, much enlarged.*—8vo. pp. 192. MacLachlan and Stewart, Edinburgh, 1828.

THIS treatise is designed chiefly for the use of students. Its objects are to shew how the various diseases of the eye may be distinguished from each other, either by the appearances of the affected organ, or by these in connexion with other symptoms. Many of the diseases, though common, have neither been described nor delineated by any writer. The author trusts that the brief descriptions of diseases which he has given are accurate, as they are the result of his actual observation. He has been careful to notice every particular which he considered necessary, either towards forming a correct diagnosis, or in elucidating the nature of each disease. The treatment recommended has been found most successful after considerable experience. "Without attempting to expose or to combat prevailing errors, whether theoretical or practical, the author has stated what, either from experience, or after mature consideration and reflection, he conceives to be correct."

We are by no means inclined to commend an eager spirit of disputation, but we cannot entirely approve of the forbearance of an author who insinuates that he is conscious of the existence of "theoretical and practical" errors upon the subject to which he has directed his especial attention, but who yet allows those errors to pass unexamined and unrefuted. The grand object of all our labours must be to distinguish right from wrong, and we certainly ought not to hesitate in pointing out, for the general benefit, the inaccuracies which our reflection or experience has enabled us to detect in the doctrines of others. It is as incumbent upon a writer to perform this duty unreservedly, as to state with the most impartial candour the results of his own observation.

The treatment of diseases of the eye was formerly almost entirely confided to persons styling themselves *oculists*. These oculists not only laid no claim to a knowledge of any

other branch of surgery, but they appeared to pride themselves upon their ignorance of those general pathological principles, without which they might certainly, by extensive practice, become expert operators; but the operative part of surgery is neither the most important to the practitioner, nor the most advantageous to the public. To perceive the first invasion of disease, and to cut it short by appropriate treatment, must be considered the most gratifying part of our duty; and, as this duty can only be performed by those who have studied the general laws of disease, it is very fortunate that, in the present day, ophthalmic surgery is almost entirely intrusted to those men who have been regularly educated in all branches of the profession, but who still have paid particular attention to diseases of the eye. "No one can expect to succeed as an oculist who is not well acquainted with the constitutional as well as local causes of disease, and with the effects of remedies as they operate on the general system."

*Ophthalmia, or Inflammation of the Eye.*—Inflammation is by far the most frequent disease that affects the eye; and most of the other affections of this organ are the consequences of inflammation, arising either from violence or improper treatment. The usual commencement and progress of the symptoms of "active or acute inflammation of the eye," which forms the subject of the first section, are too well known to require repetition. Swelling, Mr. Watson observes, only takes place when the eyelids, or parts surrounding the eyeball, are inflamed. In these cases, swelling sometimes takes place to a great degree. Redness is not a constant symptom. "The internal parts of the eye may be inflamed to a very violent degree without any external redness. The same may be said of intolerance of light, which, at the commencement of the disease, seldom occurs in proportion to the degree of inflammation, but depends rather on the nature of the parts affected." (P. 9.)

Pain, though a very common symptom of acute inflammation of the eye, is not always present.

"The pain may be very violent, darting through the head,—it may intermit,—it may amount only to increased heat and uneasiness in the organ,—or it may be wanting altogether, while the inflammation, attended with other symptoms, exists to a considerable degree. The coats of the eye are so unyielding in their nature, that when any of the more internal parts are inflamed the pain is very great." (P. 10.)

The most common local causes are—

"1. Exposure to excessive heat and light. 2. Cold and mois-

ture. 3. Wounds and other injuries of the eye. 4. The introduction of foreign bodies. 5. The application of acrid substances or acrid vapours to the eye. 6. Intemperance. 7. Contagion, by the application of morbid matter to the eye.

“The most common constitutional causes are—

“1. The suppression of customary evacuations. 2. General plethora. 3. Derangements of the alimentary canal.

“Acute inflammation of the eye occurs as a symptomatic affection in small-pox, measles, erysipelas, gonorrhoea, gout, rheumatism, scrofula, cancer, and syphilis. In many of these cases it requires to be treated as a local as well as a constitutional disease.” (P. 12.)

*Treatment.*—From whatever cause it may have arisen, acute inflammation of the eye generally requires the same mode of treatment. Of course, when the inflammation has been caused by a foreign substance having got into the eye, that must first be entirely removed before any other means of cure are applied. If any fluid of an *acid* nature has entered the eye, or one which can be decomposed by lime-water, this may be used to wash the eye, if it can be immediately procured. If any substance has got within the eye, and can be seen, it should be abstracted by making an incision in the cornea, and introducing the forceps through it. In some cases this plan cannot be necessary, as the extraneous body may be removed by the wound inflicted upon its entrance into the eye. Bloodletting, both general and local, repeated according to the severity of the disease and the constitution of the patient, is the remedy chiefly to be relied on.

“In the case of an infant affected with ophthalmia, one leech may be applied to each eye; but the bleeding should be immediately stopped by compression, when the leech has separated: and this bleeding may be repeated in twenty-four, or thirty-six hours after, according to circumstances.” (P. 15.)

The local detraction of blood may be effected by making scarifications, or by applying two or three leeches upon the inner surface of the eyelids, when its vessels are enlarged; or by the application of leeches externally; or by cupping on the temples.

“Scarifications, or the application of leeches upon the inner surface of the eyelids, should not, in general, be employed, except in cases where the violence of the inflammation has been overcome by other treatment; for, when employed previously to this, they have generally been found to produce hurtful irritation. But they may be highly beneficial in cases where the inflammation has been in some measure subdued, and where some inflammation, with increased vascularity of the conjunctiva, still continues.

“The application of leeches to the neighbourhood of the eye

is the most easy and gentle way of abstracting blood in slight cases of inflammation, where a small quantity may be quite sufficient. They form, likewise, a useful auxiliary to general bleeding in severe cases. The application of the leeches directly upon the external surface of the eyelids, is very liable to excite distressing erysipelatous inflammation of the parts, by which the employment of other remedies is prevented. It is preferable, therefore, to apply them either to the forehead, immediately above the eyebrow, or the cheek immediately below the lower eyelid. By applying them to the forehead, blood is taken directly from the branches of the ophthalmic artery; but the bites do not bleed so freely when the leeches are detached, as they do when they are applied under the lower eyelid, where the skin is more vascular." (P. 16.)

The antiphlogistic regimen, in the strictest sense of the term, is to be enforced. During the first or most acute stage of the disease, warm applications give most relief. They may be applied in the common manner, or in the form of vapour. The vapour employed may consist either of that arising from the decoction of poppies, hyoscyamus, or camomile flowers, or from boiling water poured upon a small quantity of camphor and tincture of opium. A pint of boiling water may be poured into a vessel containing one drachm of camphorated spirit of wine and one of tincture of opium. The vapour is applied merely by holding the eye open over the vessel in which the hot liquid is contained.

"When warm applications are employed, they should be discontinued whenever a remission of the inflammation takes place, and tepid or cold ones should then be substituted; for, when warm applications are continued longer than this, they are apt to cause too much relaxation of the blood-vessels, and thereby to induce passive inflammation." (P. 20.)

Mr. Watson's experience leads him to the same conclusions respecting the use of purgatives, emetics, diaphoretics, and blisters, which have been derived by other writers upon the same subject.

*Puncture of the cornea.*—"The evacuation of the aqueous humor by a puncture of the cornea was first proposed by Mr. Wardrop, from whose observations it appears that it may be performed with very great benefit in all cases of violent acute inflammation of the eyeball, and particularly when they resist other treatment. This operation is indicated when the pain is very intense, accompanied with a sense of fulness in the eye, or a feeling as if the eye was going to burst; and also when the eye, either from its prominence or from a whitish turbid appearance of the cornea, appears to be very much distended.

"The operation is easily performed with the point of a common lancet, or cornea knife, introduced through the cornea into the

anterior chamber, at a small distance from its margin; the instrument is then to be turned round a little upon its own axis, so as to allow the fluid to escape more readily by the sides of it. A needle may also be used for the same purpose.

"Other circumstances, besides those mentioned, may demand the puncture of the cornea; as when effusion of blood or purulent matter takes place into the aqueous humor. By this operation the pain from distention may be removed, and bursting of the eyeball prevented." (P. 23.)

Upon the subject of passive or chronic inflammation of the eye, the author is very brief.

*Diseases of the Tunica Conjunctiva.*—Acute inflammation of the conjunctiva is of two kinds: the one consisting of a simple inflammation of the membrane; the other is, in addition, attended with a copious effusion of purulent or muco-purulent matter from the inflamed surface. Hence the one is called *simple*, the other *purulent*, inflammation of the conjunctiva. In the former, the blood-vessels of the membrane are much enlarged, and carry red blood; but unless that part of the conjunctiva which covers the cornea be the chief seat of the disease, or partake in the general inflammation, they never extend over the cornea. The cornea, however, assumes a dim or muddy appearance, which produces more or less indistinctness of vision.

*Of purulent inflammation of the conjunctiva.*—"The purulent or puriform ophthalmia takes place only from some specific cause; as when it occurs symptomatic of small-pox, measles, or erysipelas; or when idiopathic, from infection, as in purulent or Egyptian ophthalmia, gonorrhœa, and infantile purulent ophthalmia. These last probably take place only by the application of morbid virus to the eye. The infantile purulent ophthalmia has been considered to arise from the contact of the matter of fluor albus, imparted from the mother at the time of birth." (P. 34.)

We cannot assert that the infantile purulent ophthalmia is never produced in this manner, although we have observed no facts which appear to support the opinion that the disease does arise from infection thus conveyed. It is certainly not unfrequently occasioned by the tender eyes of the infant being imprudently exposed to a strong light, or by the direct application of spirits to the eye, which nurses almost invariably mix with the water in which the child is washed.

"Those affections of the eye which are called purulent ophthalmiæ, of the different kinds already mentioned, are affections almost entirely of the tunica conjunctiva, from which the pus is copiously secreted. The degree of inflammation which takes place in these puriform affections is in general very great; and the inflammation often spreads to the adjacent parts, so as to occasion

abscess or sloughing of the eyelids,—the disorganization of the internal parts of the eye,—opacities, ulceration, or sloughing of the cornea, and suppuration of the eyeball; so that the ravages by these diseases have been truly dreadful, the humors being evacuated in many cases by the bursting of the eye, which then collapses." (P. 34.)

When the inflammation of the conjunctiva is of the purulent kind, the eyelids are so much swollen in the first stage of the disease, that it is often impossible to see the eyeball in a satisfactory manner, even by using a speculum and tearing the eyelids open. "This practice, though recommended by some, may occasion much harm, by the irritation thereby excited." It is of much consequence that the practitioner should bear in mind that minute inspection of the eyeball is not so necessary as to justify any violent measures to obtain it. The violence of the inflammation having subsided, the disease passes into the second, or suppurative stage, and large quantities of purulent matter continue to be discharged for an uncertain period.

"When acute inflammation of the conjunctiva does not terminate by resolution, the most common consequences of it are chronic inflammation, opacity, ulcer, and sloughing of the cornea, with adhesion, prolapsus of the iris, or staphyloma. These, however, are each to be considered as distinct diseases, and treated accordingly."

*Treatment of acute inflammation of the conjunctiva.*—Simple acute inflammation of this membrane generally terminates in resolution. The consequences are sometimes more serious. By its continuation or extension to other parts, vision may be more or less impaired. It, therefore, requires the vigilant and attentive application of the remedies used in acute ophthalmia.

"Great care must be taken to substitute the cold for the warm applications, whenever the violence of the disease is subdued; for, when this is not done, the inflammation is very apt to assume the passive or chronic state, which is generally more difficult to be removed than the active state.

"When the inflammation is of the purulent kind, particular care must be taken frequently to inject the fluids formerly mentioned between the eyelids, and to change the warm for cold applications. In addition to this, it is in general necessary, after washing them, to besmear the edges of the eyelids with some mild ointment, to prevent their adhering together, in consequence of the evaporation of the matter which exudes." (P. 37.)

It is true that these observations have been repeatedly made, but it is equally true that in ordinary practice they are not sufficiently attended to.

*Of passive or chronic inflammation of the conjunctiva.*—This is frequently a most obstinate and tedious form of disease. Inflammation of the conjunctiva may be of a passive or chronic character from its commencement, or it may follow acute inflammation, by gradually passing from the active into the passive state. It varies in degree from a few enlarged vessels upon the eyeball, or inner surface of the eyelids, to the distressing states about to be described.

“1. *Of passive inflammation of the conjunctiva, consisting simply of increased vascularity of the conjunctiva.*—Passive inflammation of the conjunctiva may consist of increased vascularity of the sclerotic part of this membrane, and that which lines the eyelids, without that of the cornea being affected. The vessels have then a deep red colour, inclining to purple, are often tortuous in their course, and have a turgid appearance, without symptoms of acute inflammation being present. In some cases, a rupture of some of these vessels appears to take place, blood being effused beneath the conjunctiva. The conjunctiva has a relaxed appearance, and forms into folds. The patient experiences the sensation of dust or sand existing in the eye, and a feeling of weakness in it.

“2. *Consisting of increased vascularity, accompanied with pustules, or opacity of cornea.*—When passive inflammation of the conjunctiva is not the consequence of acute ophthalmia, it is generally of a pustular character, taking place commonly in subjects of a delicate or irritable constitution. This form of the disease has been denominated strumous ophthalmia. It is most common in young subjects, and is frequently confined only to a small part of the membrane.

“Several distinct and important affections of the eye have been included under the term of scrofulous ophthalmia, from each of these being caused or kept up by that peculiar state of the constitution. The disease, in each of the different forms alluded to, is no doubt modified by the same cause, but it is necessary to distinguish them from each other, in order that the proper treatment may be adopted.

“The different forms in which scrofulous ophthalmia appear are—Symptoms of chronic inflammation of the conjunctiva simply; inflammation of the eye, the same as that last mentioned, attended with opacity, pustule, or ulceration upon the cornea, and in some cases with adhesions and prolapsus of iris; and excoriation, pustule, and ulceration of the edges of the eyelids.” (P. 38.)

Strumous ophthalmia most commonly depends upon a debilitated or relaxed and irritable state of the constitution. In its progress, therefore, it undergoes many sudden changes, from the slightest cause. Each of the forms of scrofulous ophthalmia has an acute stage, which, though sometimes of very short duration, differs in no respect from common acute

inflammation of the conjunctiva. It is only, therefore, in the second stage, when it becomes chronic, of a distressing and untractable nature, that its true nature is evident.

"The most important and most common form of strumous ophthalmia consists in the inflammation being of the passive kind, having at the same time frequent states of excitement, relapses, or recurrences of the acute inflammation. These are seldom very violent, but frequent, taking place every two or three days, and leaving the vessels of the conjunctiva in an enlarged and relaxed state.

"The passive inflammation is known by the eye having a highly vascular appearance, either over the whole or only a part of it. This increased redness of the eye, though sometimes attended with considerable tenderness to the light and lacrymation, is not accompanied with that pain and heat which would exist in the organ were the inflammation of the acute kind. It also continues for a long time nearly stationary, when proper remedies are not applied.

"When the disease is of the pustular kind, small vesicles or pustules, resembling aphthæ, appear most commonly about the margin of the cornea, sometimes upon the white part of the eye, and at other times, although more rarely, upon the cornea itself. Distinct plexuses of red vessels may, at the same time, be seen upon the conjunctiva, running towards these aphthæ; when there is only one or two; but, when the aphthæ are numerous, and surround the cornea, the increased vascularity upon the white of the eye is then more general. The inflammation which accompanies these pustules, or aphthæ, is generally of the passive kind: the red vessels then appear to be larger, more tortuous, and of a deeper colour than in acute inflammation, and there is no intolerance of light. Sometimes the pustules burst externally, but they may, in general, be removed without doing so." (P. 42.)

The constitutional treatment does not differ, in cases of chronic inflammation of the conjunctiva, from that which is required for the same form of disease when it affects other parts of the eye. As the vessels of the part affected are in a state of relaxation, astringent, stimulant, or escharotic substances will be required as local applications to restore them to a healthy state. The different local remedies enumerated by Mr. Watson are those which are in common use.

Besides the inflammations and their consequences already described, the conjunctiva is often the seat of other diseases of a chronic nature. The most common of these are pterygium and fleshy tumors, or growths upon the conjunctiva. This membrane is also sometimes the seat of cancerous disease.

"A chronic fungous state of the conjunctiva, having somewhat



the characters of a cancerous affection, is occasionally met with in the eyes of elderly persons. There are at present before me three cases of this affection, in which it was thought proper to remove the whole of the eyeball along with the diseased conjunctiva. Upon dissection, the coats and other parts seemed to be quite unaffected, and in their natural state." (P. 63.)

The succeeding chapter contains a brief, yet correct, description of the various diseases of the *Cornea*. Upon the subject of acute inflammation of the iris, Mr. Watson observes, in reference to the aversion which some surgeons have to the employment of mercury for its cure, that he has seen many eyes saved by the use of mercury, which otherwise would, in all probability, have been lost, and many lost where this mineral was not used, that might possibly have been saved by this remedy arresting the progress of the disease; for a remission of the disease generally takes place whenever the system becomes affected by the mercury.

*Of acute inflammation of the Retina.—*

"Acute inflammation of the retina is fortunately a disease of rare occurrence, both on account of the violent and distressing symptoms with which it is accompanied, and the complete loss of sight which it often occasions.

"It is attended with the common symptoms of acute ophthalmia, generally to a considerable degree of severity. The symptomatic fever is great. Violent and distracting pain, darting from the bottom of the eyeball through the head, is in general the first and most prominent symptom. The pain comes on suddenly, accompanied with great intolerance of light; the admission of which is compared to a dart passing through the head. The intolerance of light is much increased by moving the eyeball; and is sometimes followed, in the course of a few hours, with total blindness. The patient complains of occasional sparks, vivid flashes of light, and other luminous bodies, appearing before his eyes, both by night and day. Upon inspection, little or no redness is perceived upon the eyeball. The pupil appears in some cases contracted, in others dilated and motionless; the humors to be turbid and muddy.

"In many cases, other parts of the eyeball are affected at the same time with the retina. Along with this disease, therefore, symptoms of inflammation of the conjunctiva, iris, choroid coat, &c. may be present.

"It frequently happens that the symptoms and pain attending inflammation of the retina are so violent, that it resembles inflammation of the brain; the patient being affected, with delirium and want of sleep, to such a degree.

"It need scarcely be remarked, that this is a highly dangerous disease to the organ of vision. It generally terminates with vision being more or less impaired. By the continuance of it, the

tunics and humors of the eye become disorganised, so that sight is quite destroyed; and, from the agony which the patients experience, they are often thankful to arrive at a termination to their sufferings, even with the loss of sight.

"The disease is not always fatal to sight. When the proper remedies are applied early, or the disease is only in a slight degree, a perfect recovery may take place. In those cases which I have seen terminate favorably, the eye was long of recovering its wonted vigor. In one case, paralysis of the abductor muscle was the only bad consequence: it continued for some time after the eye recovered. Amaurosis, however, from paralysis of the retina, or its disorganization, is always to be dreaded.

"*Treatment.*—Acute inflammation of the retina demands the employment of the most active remedies. The antiphlogistic treatment should be carried to its greatest extent, to arrest the progress of this violent and destructive disease." (P. 104.)

The chapters on *Amaurosis* and *Cataract* will be consulted with advantage by the student. Mr. Watson remarks, that the arguments for and against the different operations for cataract have certainly been much exaggerated by those who have entered into a discussion of their merit.

"The following results of the operations of several highly eminent surgeons shew the comparative success of the different operations, as well as the success attending operations for cataract generally.

"By extraction, Daviel is said to have operated on  $7\frac{1}{2}$  cases successfully to 1 unsuccessfully; but this is doubted. Richter and Sharp,  $2\frac{1}{2}$  to 1. In 306 cases operated on by M. Roux, at La Charité, by extraction, the proportion of successful to the unsuccessful cases was  $2\frac{1}{2}$  to 1. In 306 cases operated on by M. Dupuytren, at l'Hôtel Dieu, chiefly by depression, the proportion of successful to unsuccessful cases was  $5\frac{3}{8}$  to 1.

"Besides the particular kind of operation employed for the cure of cataract, the success depends also on the selection made of the cases and the dexterity of the operator." (P. 157.)

*Of Artificial Pupil.*—Several affections of the eye require the formation of an artificial pupil to restore sight. This operation is necessary when the light is prevented from passing into the interior of the eye, by permanent contraction or closure of the pupil, or by a partial opacity of the cornea.\* In such cases, sight can frequently be restored by the formation of a new pupil, or opening in the iris.

"The patient being able to distinguish light from darkness, in cases requiring the formation of artificial pupil, is always a fa-

\* Upon this very important operation, much valuable information is contained in Mr. GUTHRIE's elaborate work upon the Operative Surgery of the Eye.

vorable symptom. The absence of it, however, should not be a reason for withholding an operation: for many cases occur where, from the nature of the affection of the iris or cornea, light is prevented from entering to the interior of an eye, which may be otherwise sound.

"On the other hand, there are cases where no reason can be assigned for the patient not being able to distinguish light: There may be a sufficient opening in the pupil, where the direct rays are prevented from passing to the retina by a central opacity of the cornea; so that the patient should be able to see the light, by the rays passing to the retina indirectly by the side of the opacity. The patient should always be able to distinguish light where the pupil is not entirely closed, though it may be so contracted from adhesion to the lens or cornea as to be unfit for distinct sight. In such cases, when the patient does not distinguish light, the prospect of a cure is very uncertain; the case, in all probability, being complicated with amaurosis, or disorganization of the internal parts of the eye: so an operation, though successfully performed, may not restore sight." (P. 163.)

The various cases requiring the operation for artificial pupil are fully described. The manner of performing the operation, of course, varies according to the nature of each particular case.

"The object of each of these operations is the same, being the formation of a new opening in the iris; but this opening may be required either in the centre or at the circumference of the iris; it may be required where the pupil is closed, or where the pupil is in its natural state; and it may be required when the iris adheres either to the cornea or to the capsule of the lens. Some of these operations are performed by simply dividing the iris; others, by the excision of a portion of it; while by others a portion of the iris is detached from its ciliary connexion. By one set of operations, the new opening or pupil is made in the centre of the iris; by another, near to its circumference: so the operator must adapt the operation to each individual case that may come under his care, by selecting the one best suited to its peculiar circumstances.

"Whatever may be the nature of the case, the nearer to the centre of the eye the new pupil can be formed, it will be the more useful to vision. A new pupil has also been found to be the most useful when made at the lower part of the eye. In many cases, however, we have not this in our choice, a small part only of the cornea being transparent, behind which the new pupil must be formed.

"The different modes of performing operations for artificial pupil have been very numerous. The instruments employed, too, have been various and complicated.

"The operations for artificial pupil may be included under three different heads: namely, those operations, 1, by the simple division of the iris; 2, by the excision of a portion of the iris; and, 3d, by the separation of a portion of the iris from its ciliary attachment, either alone or conjoined with the excision of a portion of the iris, or the strangulation of it in an opening made in the cornea." (P. 169.)

In Chapters 10 and 11, a short account is given of *injuries of the Eyeball*, and their treatment, and of *Fungus Hæmatodes* and *Cancer of the Eye*.

Mr. Watson has accomplished in a very creditable manner the task he has undertaken. He has given a concise practical sketch of most of the important diseases of the eye; and, although the work is chiefly designed for students, it will be found a ready practical guide for all who are interested in the subject upon which it treats. The descriptions of the various diseases are rendered very intelligible by the addition of many well-executed plates.

*Deafness; its Causes, Prevention, and Cure.* By JOHN STEVENSON, Esq. Member of the Royal College of Surgeons; Lecturer on the Structure, Economy, and Diseases of the Eye and Ear; and Surgeon-Oculist and Aurist Extraordinary to his Royal Highness the Duke of Clarence.—8vo. pp. 262. Colburn, London, 1828.

WE have read this little work with much satisfaction. Its language is brief and explicit, and therefore agreeable and instructive. It is practical, but in a general way, without descending to those minute details of particular treatment said to possess panacean efficacy, in which quackery delights to revel. Yet it is well adapted for the study of junior members of the profession, and those scientific *dilettanti* whose state of health contributes to render them interested in its subject. We believe it is chiefly with a view to the instruction and benefit of such readers that the author has prefixed a simple and interesting description of the anatomy of the less intricate parts of the ear, and has wisely forborne, in so elementary a treatise, to lead his tyros into the labyrinth, where, without the conducting thread of minute anatomy, they would be entirely lost.

Adopting the method of VALSALVA in his description of the ear, he divides it into external, middle, and internal portions; and, in his history of the shape of these different parts, he successfully calls in the aid of comparative anatomy to enable him more completely and clearly to point out and

illustrate the design and use for which each particular part was intended. In doing this he has given additional interest to his work, and thus, by keeping up the attention of the reader, has, while assisting the judgment to comprehend, enabled the memory also to retain the facts. We may quote the following passage as an example:

“ With regard to the structure of the passage into the ear, there are several singular varieties observable in different animals. In the owl, for example, which for the most part perches on a branch of a tree, and hearkens after the prey *beneath* her, it is produced further out *above* than below, for the better reception of the least sound. But in the fox, which prowls underneath his prey at roost, it projects more *below* than above. In the polecat, an animal that listens straightforward, it is produced *behind*. In the timid hare, an animal possessed of an exceedingly acute sense of hearing, and whose care it is to avoid her pursuers, it is furnished with a bony tube, which, as a natural otocoustic, is so directed *backward* as to receive the smallest and most distant sound that comes *behind* her.” (P. 25.)

The author, in speaking of the membrane of the drum, concludes that it presents no natural aperture; and we think with good reason, from the following experiment: “ If quicksilver be poured into the meatus, it will not pass into the tympanum; nor, if injected through the eustachian tube, will it find its way into the outer passage: a clear demonstration of the perfection and entireness of the membrane.” He tells us, that “ it was formerly supposed by RIVINUS that there is a natural aperture through the membrane of the drum.” We are surprised he does not mention the names of VEST and WITTMAN, who have so recently maintained the same opinion.

Mr. STEVENSON relates that some physiologists have attributed to the eustachian tube the office of conveying sound, but he does not say that such is his own opinion. We are firmly persuaded that this is an erroneous idea, and that nature intended that this tube should serve only to renew the air of the tympanum when requisite, and in that way alone promote the perception of sound: and we ground our opinion upon the simple experiment of stopping the ears of an individual, and then attempting to make him hear by speaking into his mouth. Indeed, the fact of our opening our mouth when we listen with great attention, and the assistance we seem to derive from this act in perceiving sounds, is easily explained without having recourse to the eustachian tubes; since every anatomist is aware that the depression of the inferior maxilla, in opening the mouth, causes its condyles,

which are situated anterior to the meatus auditorii externi, to descend and to be carried forward, so that they become somewhat dilated; which is evident to any one introducing a finger into the ear while opening his mouth.

After dismissing the anatomy of the ear, the author enters upon its physiology, and the nature of sound; in which part of his work he has assembled some striking facts and experiments, collected from the wide and fruitful fields of acoustics and comparative anatomy. But they are too much interwoven with the thread of his subject to admit of partial quotation.

We consider the following fact of practical utility, but we are averse from believing the cranium a *sensible* solid, in the sense of Mr. CLOUGH; since it is well known that all solid bodies convey sounds better than air, water, or such like thin media.

"Mr. Clough, late of Manchester, has made some ingenious experiments, from which he infers that the cranium, or skull, is a really sensible solid. We know, indeed, that a watch held betwixt the teeth, or even applied to the head, can be heard by a person who is deaf to impressions conveyed through the air. It is partly in this way that we can judge whether deafness may be cured by an operation, as depending on some injury of the mechanism of the organ, or whether it be an incurable affection of the nerve or brain itself. For, if the sound be perceptible when conveyed through the teeth, or when a watch is pressed against the mastoid process, we are assured that the internal organ is unaffected; which assurance may lead us to detect the seat of the disease to be either in the outer passage of the ear, the drum, or the eustachian tube, and to regulate our measures accordingly." (P. 72.)

By way of preface to the practical part of this treatise, the author contrasts the slight attention which the ear, though a highly complex and important organ, has received, with that which the profession has so liberally and "successfully" bestowed on the organ of sight. He suggests that this neglect of the profession is attributable to these three causes: first, "the frequent unsatisfactory result" of the treatment of its diseases; secondly, "the difficulty of ascertaining the more deep-seated morbid affections, owing to the inaccessibility of the interior parts of the ear;" thirdly, "the circumstance of the diseases themselves scarcely ever proving fatal, which precludes accurate examination after death; and seldom producing pain, the great monitor of disease, during their existence." Now it appears to us that the author has mentioned, in his two first heads, what is as nearly applicable to the "sister organ." The third is certainly equally true in

regard to some of the best understood and most afflicting diseases of the eye. And if it be true, which we doubt, that the diseases of the ear are, as the author affirms, so much less under our control, we should be more inclined to attribute our ignorance and darkness in this particular to the greater value and preference we naturally give to the perception of light, compared with that of sound; and, though the ear be very precious to us, and of high utility, and a great provider of pleasure, yet the eye has still nobler and more important functions: it delights in perusing "the human face divine;" with its rapid glance it reaches the heavens, measures and numbers the "pensile planets," and is equally competent to examine and admire the most minute and delicate beauties of nature. Blessed with a perfect eye, the deaf are almost as independent as other men, and, like Ajax of old, need only pray for light. If the ear can collect grateful sounds, as the eye can contemplate pleasing objects, it cannot assist to raise the mind by magnificent and exalted ideas. It imparts the luxuries of speech; it conveys the charms of music; but still it is decidedly inferior to the eye in keeping up our connexion with the external world. There is, we conceive, another reason why it might be supposed that the diseases of the ear could be cultivated with less zeal and less widely than ocular maladies: we allude to the greater facility with which the small number of operations required in these complaints may be performed; for we conceive (*cæteris paribus*), paradoxical as it may appear to some minds, that, in proportion to medical or surgical difficulties presented by any disease, is the degree of professional industry and talents which are employed to overcome them. This opinion is supported by merely referring to the long list of names enrolled against phthisis, tetanus, and cancer.

The author very judiciously warns the unprofessional readers not to imagine themselves capable, immediately on perusing his publication, of treating their own complaints; and tells us he has designedly endeavoured to render his work ill calculated to assist them in so dangerous a purpose. This advice is not uncalled for at the present time, when conceit and quackery are predominant.

Mr. Stevenson's method of treating the diseases of the ear is simple and scientific. He is careful throughout to recommend a strict attention to the constitutional indications while combating the local ailments. This part of his work, commencing with the diseases of the auricle, and conducting our research inwards, concludes with a description of those of the labyrinth and *nervous* deafness.

The following is his account of herpetic eruption of the auricle, which complaint, from bad management, is apt to have very serious consequence, as the annexed brief case fully shows:

"But the most troublesome and distressing ailment to which the auricle is liable is an herpetic eruption, consisting of numerous small watery pimples, or vesicles, surrounded by an inflamed base. These little vesicles bursting spontaneously, or being more frequently ruptured by the fingers of the patient, who is almost irresistibly impelled to rub or scratch them, with a view to allay the accompanying almost intolerable smarting and itching, they pour out a copious discharge, which soon becoming fetid and acrimonious, occasions irritation, excoriation, and often ulceration of the affected surface.

"If the progress of this disease be not speedily arrested, the skin and subjacent cellular texture begin to thicken and enlarge to such a degree as to render the auricle, already inflamed, disgustingly frightful and deformed. Nor is this the termination of the mischief. In consequence of the tumefaction extending to the soft parts of the auditory canal, and of the inspissation of the discharge, the area of this tube becomes so much narrowed, and in some instances so completely obliterated, as to offer a considerable barrier, or total obstruction, to the ingress of sound, causing, while the disorder continues, either partial or total deafness.

"Some time since, I was consulted by the daughter of a nobleman, who had suffered for eighteen years from the protracted obstinacy of this disease. By constitutional as well as local remedies, adapted to the nature and urgency of the symptoms, they gradually subsided: the auricle regained its healthy appearance and proper size; and the function of the ear, which had been so long suspended, was at the same time completely restored." (P. 124.)

This is followed by several other interesting cases, which we of course cannot quote. Mr. Stevenson, after describing the leading symptoms of disease in these cases, should have at least *named* the remedies he employed, and should not, in our opinion, have contented himself with merely saying, "Alterative and constitutional, combined with topical, remedies were employed;" especially as he affirms in the adjoining paragraph, "the part particularly affected likewise demands the most *careful* and *appropriate management*."

Under the article "*diseases of the outer passage of the ear*," the author remarks, that the earache is often occasioned by the present fashion of wearing the hair, in doing homage to which we are "stripped of the pendant *side locks*, the real ornaments and guardians of the ear."

"Nature, unsophisticated nature, (by which I mean the Creative



Power,) does nothing in vain. Is there no utility, to say nothing of beauty, arising from the partial concealment of the auricle by unrestrained tresses waving from the temples, and hanging gracefully by the side of the face? Such a distribution of the hair not only protects the ear from the intrusion of winged insects and light substances which move in the liquid firmament, but likewise, by breaking the force of cold winds, guards the organ from the dangerous influence of atmospheric changes.

"That such is the natural office and effect of the hair, through the interstices of which the undulations of sound readily penetrate and gain admission into the auditory passage, may be inferred from the well-known analogous fact of a thin net veil affording a salutary shelter or guard against the rude assaults of the wintry blast.

"The removal of the side locks, by exposing the ear to the partial application of cold air, becomes a fruitful source of deafness, originally induced by inflammation of the passage, and consequent suspended secretion of wax. Accordingly the hairdressers even warn the profession on this point: one of the most respectable of them informs me, that, since this fashion has been in vogue, many of his customers complain to him of pains in the ear, and increasing difficulty in the function of hearing; doubtless attributable to what may be justly termed a mutilation of the elegant shelter ordained by nature for this important organ." (P. 135.)

He also inveighs against the use of "nightcaps made of flannel, thick cotton, or dense silk," and considers the complete desertion of them an advantage; and adds, that, by proscribing them, he has cured many of his patients and friends of "that oppressive weight and morning headache so often complained of." The author here furnishes us with a theory of the manner in which the cap becomes injurious, which is very plausible, and may be true; and, in confirmation of his practice, we may relate that we know more than one individual who lost, with the habit of wearing nightcaps, their tendency to nasal colds and occasional earache.

In section 5, on "*extraneous substances or insects in the outer ear*," and in section 6, "*redundancy or deficiency of wax*," the author more than once reprobates the *injudicious* or unskilful use of instruments, by which he informs us the membrane is sometimes ruptured, and otherwise injured. We believe ear-pickers are not so much in vogue as formerly, and it would be well for the public did they entirely forego the use of them, if the opinion of a great physician of the eighteenth century was correct. Our author says,

"So firmly persuaded was Sir Hans Sloane of the bad effects of these instruments, that, in a paper which he wrote on the subject in the Philosophical Transactions, he does not hesitate to

declare that he could trace to their officious use nearly all the cases of deafness which were brought for his assistance." (P. 166.)

The distressing consequences caused by a foreign body in the ear is well exemplified in the following case. We learn that the subject of it was an "officer of high rank and distinguished courage during the Peninsular war." He had been wounded, and, while only convalescent, his steed propelled him against the branches of an oak, which lacerated the auricle. "External inflammation of the ear was thus produced, which was succeeded by a copious purulent discharge.

"In spite of the various applications resorted to with a view to suppress the disease, matter continued to issue from the outer passage in considerable quantity.

"Returning to England in this state, and with the sense of hearing nearly extinguished, he called to consult me on the subject. Upon attentively inspecting the tube in a clear light, I noticed something lying at the very bottom of the passage, which, on cautiously pressing upon it with a probe, proved to be hard and resisting, but at the same time slightly moveable.

"On considering the concussion he had sustained, in connexion with all the other circumstances of the case, I was led to suspect that a portion of the bony meatus, being fractured, had become detached, and by its presence served to keep up the discharge.

"I proposed, at all events, whatever might be its nature, to extract this body; an operation which, with some difficulty, was accomplished. On examining the extraneous substance, after freeing it from all adhesive matter, I found that it was a splinter of oak, the introduction of which could easily be explained, nearly half an inch in length, and about two lines in breadth, one pointed extremity whereof had penetrated through the membrane of the drum, whilst the remainder lay fixed across the passage in the angle formed at its farther extremity.

"This foreign substance having been removed, the ulcer which it produced and kept in a perpetual state of irritation, speedily healed, and the hearing was perfectly restored." (P. 157.)

We shall not enumerate the various means the author recommends for the extraction of foreign substances and insects from the ear; but we consider his remarks on this subject, as well as elsewhere, those of a person who has had long practice and experience. It is curious that CELSUS should, after advising many rational remedies and modes for the removing from the ear insects and other substances, conclude by recommending this unlikely and barbarous plan, which we insert to shew the futility of talents, if correct anatomical knowledge is wanting. "*Tabula quoque collocatur media inhaerens, capitibus utrinque pen-*

dentibus, superque eam homo deligatur in id latus versus, cujus auris eo modo laborat, sic, ut extra tabulam non emineat; tum malleo caput tabulæ, quod a pedibus est feritur: atque ita concussa aure, id quod inest, excidit."

Mr. Stevenson gives the following signs for detecting the imperviousness of the eustachian tube:

"The obstruction or obliteration of this tube may be suspected as the cause of deafness, by ascertaining whether any syphilitic ulcer, sloughing putrid sorethroat (cynanche maligna), enlarged tonsils, or descent of a nasal polypus, has preceded the disease. Further information may likewise be gained by causing the patient to inflate the tympanum: if he possesses this power, the duct must be free; but the converse does not necessarily follow, since all have not the tact and ability to force air into the cavity of the drum, who may nevertheless have a pervious eustachian tube. We have not, indeed, any infallible criteria by which to judge of the existence of this disease, the whole of our knowledge on the subject amounting only to what may be called presumptive evidence." (P. 214.)

"The eustachian trumpet," says our author, "may be closed either in the bony portion of the tube, by ossification, which comes on gradually, and without any premonitory symptoms; or, what is far more frequent, by an obstruction of the mouth of the duct, which opens at the side of the throat. If, therefore, a patient complain of deafness unattended with other symptoms, such as noises in the head, or any of those sensations which indicate a deranged state of the auditory nerve, and we find, upon inquiry, that he has previously laboured under, or is actually suffering, either of the local affections above mentioned; and, further, that he cannot, by filling the mouth with air, force it into the tympanum, it is reasonable to infer that an obstruction of the eustachian tube is the true cause and essence of the disease.

"But simple inflammation of this tube more frequently produces deafness than is generally supposed; the nature and symptoms of which, though exceedingly distressing, and sometimes even alarming, not uncommonly escape detection. In illustration of this, I mention the following cases.

"A highly respectable lady wrote to me, some months since, respecting her daughter, about nineteen years of age, who laboured under a total deafness in one ear, and a great defect of hearing in the other.

"She represented the disease to have come on gradually with a slight cold, sore throat, and hoarseness; symptoms which were soon associated with occasional shooting pains in the side of the neck, extending to the back part and side of the head. These attacked her by paroxysms, the violence of which increased so much as at times to induce fainting. Her nights were restless, her appetite and digestion much impaired, and she became in conse-

quence exceedingly weak and emaciated. Having at the same time cough and purulent expectoration in the morning, with a white tongue, quick pulse, and general febrile irritation, it was feared that the case would terminate in consumption of the lungs, (phthisis pulmonalis.)

"The symptoms were too complex and formidable to warrant my venturing to prescribe without the opportunity of a personal inquiry into all the circumstances of the case, which being declared by her justly eminent medical attendants to be highly discouraging, she determined, although residing at a distance of near two hundred miles, to hazard, by easy stages, a journey to London, in order that she might place herself under my immediate care. With great difficulty and some danger, her object was accomplished; and, after a full investigation of the symptoms, I satisfied myself that they originated from an inflammation of the eustachian tube, the guttural extremity of which having become slightly ulcerated, afforded the purulent expectoration.

"With this conviction on my mind, I prescribed external irritants, and the local application of fumigations and gargles to the inflamed and ulcerated surface, together with appropriate constitutional treatment: the disease was thus gradually subdued, and I had the gratification of restoring my patient not only to perfect health, but also to the full enjoyment of her hearing." (P. 216.)

This case is followed by others of similar importance.

The French speak with more certainty on this subject, and place great reliance on the annexed experiment. Having made the patient lie on one of his sides, and then filled the meatus auditorius externus of the opposite ear with water, they direct him to make several powerful expirations; when, if the tube is pervious, it will be indicated by the alternate rise and fall of the fluid in the ear, corresponding with the action of the lungs.

These are our author's directions for puncturing the drum where the tube is permanently obliterated.

"Preparatory to commencing this operation, the patient must be placed in a strong light, and in such a position that the passage may be fully illuminated, and the membrane rendered plainly visible. A small triangular-pointed trocar, made with a shoulder for this especial purpose, or the pointed end of a common silver probe, —which, in default of the former instrument, I have used with success,—must be carefully thrust through the anterior and lower part of the membrana tympani. Great caution is requisite, in order to avoid touching the handle of the malleus, which might, with its articulated chain of bones, be dislocated from their connexion; an accident which would irreparably injure the function of the organ.

"It is also necessary to take care that the instrument be not allowed to penetrate too far into the cavity of the tympanum, lest

its vascular lining be wounded; in which event blood being effused and coagulating, might become organised, and render nugatory the effect of the operation.

"A cracking noise will be instantly perceived on the puncture being made, similar to what is occasioned by the pricking of thin parchment whilst stretched, which is more loud and sharp if the tube be totally obstructed, from the rapid entrance of air through the small aperture. The patient, if his case be adapted to this mode of treatment, is instantaneously restored to hearing.

"The object and effect of the process is, the substitution of the artificial small hole in the membrana tympani for the obstructed eustachian tube, by which the air being again admitted into the cavity of the drum, the mobility of the membrane returns, and the action of the small bones, and all the connecting machinery, is to a certain extent re-established.

"The puncture is, however, apt to close, as Valsalva found in his experiments on a dog, and occasionally requires to be repeated two or three times before the aperture, by being made fistulous, becomes patulous and open.

"In one instance,—that of a respectable female who resided in St. Paul's Church yard, whose hearing I succeeded in restoring by this method,—I had occasion to introduce the trocar a second time, in consequence of a reunion of the puncture, and return of deafness; after which, however, it remained permanently open, and the function of the organ continued complete.

"This operation, though apparently simple in the hands of an expert practitioner, requires so accurate a knowledge of the situation and structure of the parts to be acted on, and of the manner of introducing the instrument with success, and without causing mischief, that it ought never to be undertaken by any but such as are qualified for the task by anatomical knowledge and surgical skill." (P. 230.)

We may here remark, that ANDRAL advises us to introduce the extremity of a "*sonde cannelée*" into the puncture every other day during the two first weeks, in order to prevent the adhesion of its sides.

The author does not state the average success he has experienced in this operation; but we know that the celebrated ITARD relates that he only succeeded twice in ten operations of this kind for the cure of deafness.

DELEAU has several times, he informs us, injected air through the eustachian tube, with great advantage, in certain cases of deafness; so that, through these "*douches d'air*," as he calls them, patients, who for years could not hear a watch at the distance of a few inches, have, after a moderate trial of this remedy, been able to hear the same sound several feet from them. We wish the author had given us his opinion

of this remedy. It is singular that injecting through the eustachian tube was, in France, first practised by a post-master of Versailles, who lived during the last century, and performed the operation on himself!

We have now brought our review of this work to a close; but having already expressed our opinion of its merits in detail as we passed through its different divisions, we have nothing more to add in conclusion, than that it may safely be consulted as a book of reference by either the student or practitioner.

Perhaps, Mr. Stevenson will excuse our suggesting to him that the detail of a case can never be made additionally interesting by the information that the patient resided "in one of our fashionable squares," or that he was "an officer of high rank and distinguished courage during the Peninsular war."

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*Pathological and Surgical Observations relating to Injuries of the Brain.* By B. C. BRODIE, F.R.S. Surgeon to St. George's Hospital. Part I. [From the *Medico-Chirurgical Transactions*, vol. xiv.]

ALTHOUGH much valuable information upon this subject lies scattered throughout the mass of surgical literature, no practical writer, with whose works Mr. Brodie is acquainted, has attempted to make such an arrangement and collection of facts as will enable the surgical student to take a distinct and connected view of all the parts of this interesting inquiry.

Mr. Brodie first gives an account of the immediate effects of injuries of the head as indicated by dissection; and in the next section he treats "*on Concussion of the Brain.*" Many of the consequences of an injury of the head which are disclosed to us by dissection, are not likely to be marked by any peculiar symptoms in the living person, at least not previous to the access of inflammation. It has been long established, that another cause besides those detected upon dissection may be concerned in producing the symptoms which immediately follow a contusion of the head.

"A man receives a blow on the head; he becomes insensible, and continues so for a few minutes, or for several hours. He dies, in consequence of this or some other injury; and, on examination after death, the brain and its coverings appear to be perfect in all their parts; so that the most accurate anatomist can discover nothing different from the natural appearance of these organs. Opportunities of verifying this observation occur more or less to all those who have had much experience in their profession. In such cases, the patient is said to have been stunned, or to have suffered from concussion of the brain: and it is to one of these three causes, namely, concussion, compression, and wounds of the brain, that the symptoms which immediately follow an injury of the head, and which are antecedent to those produced by inflammation, are to be referred.

"Opportunities of inspecting the brain, where the patient has laboured under symptoms of concussion, may arise, first, where the concussion has so

disturbed the functions of that organ as to have been in itself a cause of death (which is, on the whole, a rare occurrence). Secondly, where the concussion of the brain has been complicated with other and still more serious mischief. We learn from such examinations, that the symptoms which are ascribed to concussion do not depend on any such derangement of the organization as admits of being disclosed to us by dissection. The brain appears to retain its natural structure unimpaired. We are not, however, justified in the conclusion that there is therefore in reality no organic injury. It is difficult to conceive in what other manner concussion of the brain can operate so as to produce the effects which it is known to produce; and if we consider that the ultimate structure of the brain is on so minute a scale that our senses are incapable of detecting it, it is evident that there may be changes and alterations of structure, which our senses are incapable of detecting also. The speedy subsiding of the symptoms of concussion does not contradict this opinion. A deep incised wound in other parts of the body may, under certain circumstances, be completely and firmly united in the space of twenty-four hours; and it is easy to suppose that the effects of a much slighter injury may be repaired in a still shorter space of time.

“The disturbance of the functions of the brain, which is the consequence of concussion, may exist in various degrees, and may be of various duration.

“In many instances there is at first complete insensibility to external impressions. The patient lies as if in a state of apoplexy, from which, however, he recovers in the course of a few minutes. In some instances the recovery is complete; the patient rises and walks away as if nothing unusual had occurred. In other cases, this state of total insensibility is followed by one in which the sensibility is impaired, but not destroyed. The patient is not affected by ordinary impressions, but, if spoken to in a loud tone of voice, he will shift his position, and answer in a peevish manner. Sometimes he is in a state of imperfect delirium, talking in an incoherent and rambling manner, as if intoxicated. The pupils contract on exposure to light, and are sometimes more contracted than under ordinary circumstances. There is no paralysis. The respiration, in the great majority of cases, is performed easily and naturally; in a few instances only it is laboured, and approaching to being stertorous. These symptoms may wholly subside in the course of a few hours, or they may continue for three or four days. In the latter case it frequently occurs that the patient regains his sensibility for a time, and then relapses into his former condition. Where inflammation of the brain follows the injury done by concussion, it may be that the primary effects of the concussion are entirely relieved, so that there is a considerable interval of sense before the inflammation shews itself. But it may be also that there is no such interval; and the symptoms of concussion, in this last case, are gradually and imperceptibly converted into those of inflammation.

“Concussion of the brain, in almost every instance, occasions headache; sometimes a slight headache, which is speedily relieved; at other times an intense headache, which may remain for some days, a solitary symptom, after all other symptoms are vanished. Sickness and vomiting for the most part are early symptoms, and seldom continue after the patient has recovered from the first shock of the accident. Of course, there is no recollection afterwards of what occurred during the period of complete insensibility. The memory, however, is sometimes affected to a still greater extent; and the impressions made on the mind by the events immediately antecedent to the injury become

obliterated. A groom in the employment of the Persian ambassador, in the summer of 1819, was engaged in cleaning one of the ambassador's horses, when he received a kick from the animal on the head. He did not fall, nor was he actually insensible or stunned; but he entirely forgot in what employment he had been engaged at the time of receiving the blow. Being unable to account for the time which had elapsed, he concluded that he had been asleep: said so to his fellow-servants, observing at the same time that 'he must set to work to clean the horse, which he ought to have done before, instead of going to sleep.'—A boy going down into the hold of a ship fell from a considerable height, and struck his head. He lay insensible, as it appeared from the observation of his shipmates, about half an hour, when he came upon deck without any assistance. Nevertheless, on the following day, all the circumstances of the accident had passed from his memory. Some time afterwards, when he was received into St. George's Hospital, I found that he knew nothing of the accident except from the report of others. He had not only entirely forgotten the accident itself, but he did not even remember his having gone down into the hold of the vessel before the accident, nor his having come upon deck afterwards; and he never regained his recollection on these points. Desault mentions the case of a man, who, after a blow on the head, at first had no recollection except of recent events; but afterwards a change took place, in consequence of which his memory failed him as to recent events, while he could remember those which had occurred in childhood.

"A number of circumstances which it is unnecessary to enumerate, as every physiologist is well acquainted with them, tend to shew that the influence of the brain is by no means necessary to the action of the heart; which may, under certain circumstances, continue uninterrupted, even after the entire removal of the head. Nevertheless, in cases of concussion of the brain, we generally find the circulation more or less affected; the pulse intermitting, irregular, feeble, perhaps scarcely perceptible, and the patient in a state approaching to that of syncope; and such may be his condition for a few minutes, or for the first four or five hours after the infliction of the injury. The connexion and sympathy which exist between the different parts of the nervous system, afford a reasonable explanation of this apparent anomaly, which, however remarkable it may be, is not more remarkable than the syncope which not unfrequently follows the first introduction of a bougie into the urethra, or that which is the consequence of many other trifling injuries of parts remote from the centre of the circulation, and exercising no direct influence over the functions of the heart.

"In those cases in which concussion proves fatal, it appears to be this disturbance of the heart's action which is the immediate cause of death. In general, when the patient has lain for some time in the state which has been described, a reaction of the circulating system takes place, and the pulse beats with greater strength in proportion as the failure of it was greater in the first instance. But where the shock has been unusually severe, there is no such reaction. The pulse becomes more and more feeble, more irregular and intermittent; the extremities grow cold; and at last, the action of the heart being altogether suspended, the patient expires. In some cases, even after reaction has begun to take place, it seems as if the constitution was unequal to the effort: there is another failure of the circulation, the result of which is the same as if the patient had never rallied from the beginning.



“Sect. 4. *Compression of the Brain.*—If the dimensions of the cavity of the cranium be suddenly diminished, as in a case of fracture with depression of bone, or if the actual quantity of the contents of the cranium be increased, as in a case of ruptured vessel and extravasation of blood, the functions of the brain become impaired. This is a matter of experience and observation, about which there is no dispute. There may be, however, some difference of opinion as to the physiological explanation of the phenomena which arise in such cases. It has been usually held that the substance of the brain is actually compressed; but Mr. Bell observes, very truly, that we have no more right to believe that the substance of the brain admits of being compressed, than that water is compressible; and he infers that what is called compression of the brain operates not on the substance of the brain itself, but simply on its blood-vessels; lessening their diameter, and thus preventing that due supply of scarlet arterial blood which is necessary to a due performance of the vital functions. It is evident, indeed, that the effect which compression of the brain produces on its vessels must be to a greater or less extent, such as Mr. Bell has described it to be. It may, however, be urged on the other hand, first, that in some cases symptoms similar to those which arise from compression take place where there is a preternatural determination of blood to the head; where the vessels, instead of being empty, are actually overloaded; and that in these cases the symptoms are relieved by drawing blood from the jugular vein, or from the veins of the arm; as if the pressure occasioned by too much blood in the vessels was productive of nearly the same effects on the brain with that arising from blood in a state of extravasation; secondly, that, although we admit the substance of the brain to be incapable of being compressed into a smaller compass, yet that the effect of all pressure on it must be, and is, to alter the position and relative situation of the delicate fibres of which its minute structure is composed, and that we need seek no further explanation of the symptoms which are met with in these cases.

“In whatever way compression of the brain operates so as to disturb the functions of that organ, it is difficult to explain wherefore the symptoms to which it gives rise are sometimes slight, and at other times urgent, although occurring under circumstances apparently similar. A depression of bone, which in one instance produces comparatively little effect, in another case occasions a manifest destruction of sensibility: and the same observation may be made respecting internal extravasations of blood. Every practical surgeon must have observed that there are differences in the symptoms produced, which are not to be accounted for by any difference in the quantity of pressure, nor in the particular part of the brain which is affected by it. At the same time it is undoubtedly true that, for the most part, the patient suffers more from an extensive than from a slight depression; more from a large than from a small extravasation. There is reason to believe that pressure is, on the whole, more dangerous when it affects the lower part of the brain, than when it affects the upper part; and it has appeared to me that more urgent symptoms are produced by a given quantity of blood, when it is effused into the cells between the tunica arachnoides and pia mater, than when it is collected in one mass so as to produce a less general pressure.”

Mr. Brodie next proceeds to consider the particular symptoms which arise from pressure on the brain. He is of opinion that there is not any such difference in the character of the insensibility produced by concussion and that produced by compression of the brain, as will enable us at once, and in all

cases, to distinguish these two kinds of injury from each other. For example :

"A woman received a blow on the head ; after which she was able to walk home, complaining that her head was hurt, and that she had received her death blow. In an hour after the accident, she gradually became insensible. About fourteen hours afterwards she was brought to St. George's Hospital, labouring under symptoms precisely corresponding to those which have been described by Mr. Abernethy as arising from concussion. These symptoms continued, and even rather abated than increased, until the third day, when an aggravation of them took place, and she expired. On examining the body, eight ounces of blood were found effused underneath the dura mater. The circumstance of there having been no loss of sense in the first instance, and the interval of an hour which elapsed between the period of the accident and that of the occurrence of the symptoms, sufficiently demonstrate that they were the consequence of pressure produced by the hemorrhage, and not of the concussion."

In some cases sensibility is destroyed in one part of the system, while the general sensibility is but slightly impaired. Mr. Brodie has never met with an instance, in cases of hemiplegia after an injury of the head, in which the paralysis was not on the side opposite to that on which the pressure existed. This observation, however, does not apply to more partial paralytic affections. The state of the pupils varies very much in cases of pressure on the brain, even under circumstances apparently similar. The author has seen the pupils dilate with the absence, and contract with the presence of light, although the patient lay in a state of complete insensibility. Generally, however, where the other symptoms of pressure are present, the pupils are insensible and motionless, being usually dilated, but sometimes contracted. Sometimes the pupils remain dilated for a time, then contract suddenly, and again dilate ; these changes taking place independently of light and darkness. Mr. B. has observed, especially where the pupils have been dilated, that they frequently contract immediately after bleeding ; the dilatation returning when the immediate effect of the bleeding has ceased. Dr. HENNEN mentions a case in which blood was extravasated among the membranes of the brain, and in which the pupils were observed sometimes to dilate with an increase, and to contract with a diminution, of light. We have frequently observed the same fact when examining the eyes of children either during the existence of convulsions, or previous to the occurrence of the paroxysm, when the symptoms indicated its approach. One pupil may be dilated while the other is contracted.

Does secondary hemorrhage, Mr. Brodie asks, ever occur within the cavity of the cranium? Such an occurrence is thought to be very rare, but it probably happens in the following case :

"A man, thirty-five years of age, on the afternoon of the 8th of November, fell from a cart, and struck his head against the pavement. A medical practitioner in the neighbourhood bled him, and he was afterwards brought to St. George's Hospital, talking and reeling like a drunken man. He was again bled. On the following day he complained of headache, but was otherwise well. He continued without any symptoms until five in the morning of the 12th of November, when some of the patients in the same ward heard him talking incoherently. The nurse called the house surgeon to him, but before he could arrive the man had become insensible, and was found lying motion-

less, with stertorous respiration and dilated pupils. Blood was taken from the arm, but the symptoms were not relieved, and he died in about half an hour after the commencement of the attack. On examining the contents of the cranium after death, a thin layer of blood was found extravasated in the cells between the tunica arachnoides and the pia mater, where those membranes cover the posterior part of the two hemispheres of the cerebrum. In the lower part of the right anterior lobe of the cerebrum, the substance of the brain had been ruptured; and underneath this part, between the dura mater and tunica arachnoides, there was a collection of about two ounces and a half of blood. This last had all the appearance of a recent extravasation, and seemed to afford a satisfactory explanation of the sudden alteration in the symptoms which immediately preceded the patient's dissolution: the hemorrhage in the first instance having in all probability been checked by the blood-letting which was resorted to both immediately after the accident and on his admission into the hospital."

The peculiar danger of wounds of the brain arises, in the great majority of instances, not from the immediate effects of the injury, but from the extensive and intractable inflammation which takes place afterwards.

*Treatment of concussion of the brain.*—It is commonly remarked that two opposite modes of treatment have been recommended in cases of concussion of the brain: stimulants and cordials; bleeding and antiphlogistic remedies. Mr. Brodie remarks, that the opposition of opinion is greater in appearance than in reality.

"I am inclined to believe that, if the advocates of the respective systems were questioned on the subject, it would be found that the views which they entertain are not essentially dissimilar. I suppose that none of those who have suggested the exhibition of stimulants would actually be inclined to apply this practice to cases in which the pulse has regained its strength and regularity; and, on the other hand, I conclude that no one among those who have advised the use of the lancet would think of taking away blood when the patient lies with pale cheeks and cold extremities, and a feeble and intermitting pulse, or would refuse to resort to the cautious exhibition of cordials and stimulants where these symptoms are so urgent that he is manifestly in danger of sinking, in consequence of the depressed state of the circulation which has followed the first shock of the injury.

"Cases of this last description are, however, in reality of rare occurrence; and there are, indeed, sufficient reasons why we should regard that condition of the system which approaches to syncope as being, in the great majority of instances in which it exists, conducive to the patient's welfare, and why we should wish to prolong, rather than to abridge, the period of its duration. The same blow which gives rise to symptoms of concussion frequently occasions the rupture of some small vessels within the cranium. The same state of the system which produces an enfeebled action of the heart, is calculated to prevent the ruptured vessels from pouring out their contents; and, the longer it continues, the less is the danger of internal hemorrhage. If we artificially excite the action of the heart by the exhibition of wine and ammonia, we are in danger of inducing symptoms of pressure on the brain. If, on the contrary, we watch the gradual restoration of the pulse, and at the proper moment take from the arm a sufficient quantity of blood to prevent the heart resuming its wonted action, it is probable that we may often succeed in checking or arresting an extravasation of blood on the surface of the

brain, or among its membranes, which might otherwise prove fatal. There is also the following very important circumstance, which is not to be overlooked in this part of the inquiry. A state of depression is followed by a state of excitement. As the patient recovers from the former, the pulse, with respect to fulness and strength, becomes raised above the natural standard; and it is evident that this affords an additional argument in favor of the practice which is here recommended.

"The same views respecting the prevention of internal hemorrhage which incline us to take blood from the arm in the first instance, cannot fail to influence our conduct afterwards. There is no evident reason why vessels, which have once bled, should not be liable to bleed again within the cranium, as well as in other situations. I have already mentioned a case in which a patient, who was apparently going on favorably, suddenly expired in consequence of such secondary hemorrhage, on the fourth day after the occurrence of the injury. If similar cases are rare, this may reasonably be attributed to the remedies which modern surgeons, with few exceptions, do not fail to employ. At any rate, where so much is at stake, we are called upon to neglect no measures of precaution; and, however small the danger from this cause may really be, the surgeon should provide against it, by frequently inquiring into the state of his patient; by urging the necessity of continued repose of body and mind, by limiting him to a scanty vegetable diet, by the exhibition of laxative medicine, and by the abstraction of blood, whenever the state of the pulse indicates that this may be done with propriety.

"Independently of the foregoing, there are other considerations, which might of themselves lead us to adopt the same method of treatment. I believe that the patient, in cases of concussion, will generally spontaneously recover from that state of insensibility in which he remains after the vigor of the circulation is restored. But, nevertheless, from the best observations which I have made on the subject, I cannot doubt that his recovery is much assisted by repose and low diet, and depleting remedies. Often, immediately after being bled, the patient, who before was in a state of stupor, exhibits manifest signs of returning sense. Further, it may be urged that concussion is liable to be followed by inflammation of the brain, or its membranes. Now, I do not mean to say that such inflammation can always be prevented, or that the abstraction of very large quantities of blood will make the patient a better subject for it if it should occur; but it seems reasonable to suppose, and our experience of these cases, and of other cases bearing an analogy to them, confirms the opinion that there is less danger of inflammation where the antiphlogistic treatment has been carried to a moderate extent, and where the patient has been kept in a state of perfect quiet, than where bleeding and laxative medicines have been neglected, and the patient has been allowed to exercise his body and mind, and to live on his usual diet.

"The quantity of blood which the vessels of the brain contain depends very much on the position of the head with respect to the rest of the body. Not only in cases of concussion, but in all other cases where there has been an injury of the brain, or one likely to affect the brain, the head and shoulders should be raised by additional pillows, so that the blood may have an easy descent to the right side of the heart. In addition to this, in severe cases of concussion, the head should be shaved, and compresses should be applied, constantly moistened with a cold evaporating lotion. Opiates should be

avoided. It is difficult to conceive what good purpose they can ever have been expected to answer; and at any rate they tend to constipate the bowels, and not unfrequently cause a confusion of symptoms, the patient complaining of headache, of which it is difficult to say whether it belongs to the injury itself or to the opium.

"In taking a view of the various satisfactory reasons which may be urged in favor of a particular plan of treatment in cases of concussion of the brain, we must not overlook the circumstance that this treatment may be carried too far; and we must endeavour to avoid the error which I have known some surgeons fall into, of resorting to a too free use of the lancet. At first, when the reaction of the heart has taken place, it may be right that the patient should lose a considerable quantity of blood, so as completely to subdue the force of the circulation. Afterwards, for the most part, it is only an occasional bloodletting that is required, and that to a moderate extent. It has appeared to me that this mode of proceeding has usually done more, both towards relieving the present symptoms and preventing subsequent inflammation, than a more active system of depletion; and where very large quantities of blood have been already taken away, if inflammation should shew itself, our resources are comparatively limited, and we are not able to meet it with that energy and vigor which the circumstances of the case require.

"Where bleeding has been carried to a great extent, symptoms frequently occur which in reality arise from the loss of blood; but which a superficial observer will be led to attribute to the injury itself, and concerning which, indeed, it is sometimes difficult even for the most experienced surgeon to pronounce, in the first instance, to which of these two causes they are to be referred. Repeated copious bloodletting is of itself adequate to produce a hardness of the pulse, which we shall in vain endeavour to subdue by persevering in the same system of treatment. In many individuals it will produce headache and confusion of mind, not very different from what the injury itself had previously occasioned. These things may be observed especially in young females who are disposed to hysteria, and whom I have often known to suffer from a continued aggravation of such symptoms as I have described, while the system of depletion has been continued; recovering immediately on the use of the lancet being laid aside, and on their being allowed to take solid nourishment, with occasional doses of the carbonate of ammonia."

*Treatment to be employed in cases of compression of the brain, not complicated with wounds of the brain or its membranes.*—In all cases of injury of the head, if the dura mater is wounded, the danger is considerably aggravated. This circumstance also modifies, or even alters, the treatment. Mr. Brodie at present supposes that such a complication does not exist. When the symptoms of compression indicate danger, the cause on which they depend should be removed by a surgical operation, where it can be accomplished.

"An operation is also to be resorted to in those cases in which there are symptoms of pressure depending on hemorrhage between the dura mater and the bone. But here another question arises: What is the evidence which is to enable us to detect a mass of extravasated blood in this situation, and how

\* Dr. MARSHALL HALL has published, in the thirteenth volume of the *Medico-Chirurgical Transactions*, some excellent practical observations on the effects of copious bloodletting, many of which are applicable to the cases mentioned above.

are we to determine what is the exact part of the cranium which should be perforated by the trephine? I must here refer to an observation which has been already made. Blood is seldom poured out in any considerable quantity between the dura mater and the bone, except in consequence of a laceration of the middle meningeal artery, or one of its principal branches; and it is very rare for this accident to occur except as a consequence of fracture. If, therefore, we find the patient lying in a state of stupor, and, on examining the head, we discover a fracture with or without depression, extending in the direction of the middle meningeal artery, although the existence of an extravasation on the surface of the dura mater is not thereby reduced to an absolute certainty, it is rendered highly probable, and the surgeon, under these circumstances, would neglect his duty if he omitted to apply the trephine. If it happens that no extravasation is discovered, the operation does not leave the patient in a worse condition than he was in before: but, if there be an extravasation, although it does not place him in a state of absolute security, it relieves the present symptoms, and gives him a chance of recovery which he would not have had otherwise.

"Where no fracture is discoverable, yet if there is other evidence of the injury having fallen on that part of the cranium in which the middle meningeal artery is situated, the use of the trephine may be resorted to on speculation, rather than that the patient should be left to die without an attempt being made for his preservation. I cannot, indeed, adduce any particular experience of my own in favor of what is here recommended; but I conceive that the instances which have been recorded, in which the middle meningeal artery has been ruptured without any fracture of the bone, and the known fact that there is sometimes a fracture of the inner table of the skull, while there is none of the outer table, sufficiently justify such an experiment in desperate cases, or even in those in which there is much danger. Our judgment may be assisted on those occasions by attending to the rule laid down by Mr. ABERNETHY: 'If there be so much blood on the dura mater as materially to derange the functions of the brain, the bone to a certain extent will no longer receive blood from within; and, by the operation performed for its exposure, the pericranium must have been separated from its outside. I believe that a bone so circumstanced will not be found to bleed; and I am certain that it cannot bleed with the same freedom and celerity as it does when the dura mater remains connected with it.'"

"In applying the trephine on account of a fracture with depression, the removal of a small portion of bone is generally sufficient; and there is, indeed, no sufficient reason for removing any considerable portion of the cranium. But, in resorting to the application of the trephine on account of an extravasation of blood on the surface of the dura mater, our practice should be different. The bone should be removed extensively, so as to expose at any rate a large portion of the surface of the dura mater, in which the extravasation has taken place. The necessity of attending to this rule was impressed on my mind by a case which came under my care in the hospital in the year 1814. A man was admitted with a fracture of the parietal bone, and a large extravasation of blood between the cranium and the dura mater. I removed two triangular pieces of bone with a straight saw, and a large quantity of blood, partly fluid, partly coagulated, escaped through the open-

\* Abernethy on Injuries of the Head, edit. 1797, pp. 33, 34.

ing that was made. The symptoms under which the patient laboured were immediately relieved, and for several days he appeared to be going on favorably. But suppuration ultimately took place on the surface of the dura mater, wherever the extravasation had separated it from the bone. The opening made by the saw being in great measure occupied by granulations from the dura mater, afforded no opportunity for the free escape of the pus which was formed in the neighbourhood, in consequence of which the abscess burrowed between the dura mater and the bone, separating them from each other much farther than they had been separated originally. As soon as I had discovered what was taking place, I removed another portion of bone with the trephine; but the mischief had now become so extensive that the operation gave scarcely temporary relief, and the patient died. Reflecting on the case afterwards, I could not but acknowledge that if I had removed a larger portion of the bone in the first instance, so as to expose the extravasated blood more completely, the pus which was afterwards secreted could have been freely discharged, and the life of the patient would in all probability have been preserved.

“ But the most common cause of pressure on the brain is an extravasation of blood within the cavity of the dura mater. Here, if there be any large collection of blood in one mass, it is generally in the basis of the cranium; sometimes in the substance of the brain, at other times in the cells between the tunica arachnoides and pia mater. In either of these cases it is beyond the reach of an operation. There may, indeed, be a large extravasation of blood on the superior surface of the cerebrum immediately beneath the dura mater; but, if such an extravasation does exist, in what manner are we to become informed of its existence? We may regard it as a general rule, that an operation is not applicable to cases of compression of the brain from internal extravasation. But there are few general rules in surgery to which some exceptions may not be made. Let us suppose a case in which a considerable portion of bone has already been removed; in which the dura mater is seen exposed, of a blue colour, lifted up by a collection of blood beneath it, and bulging as it were into the aperture which has been made in the cranium. Are we justified in puncturing the dura mater for the purpose of allowing the extravasation to escape? Every thing that we see of wounds of the dura mater tends to prove the very great danger of this kind of injury. The dura mater should never be wantonly punctured; but we cannot doubt that, in what may be regarded as desperate cases, it must be right to give the patient the chance, small as it may be, which the division of the dura mater affords him. The combination of circumstances which would lead to such an operation must be very rare; but it may occur nevertheless, and the surgeon should be prepared to meet it. The late Mr. Chevalier was called to a child a year and a half old, who had received a severe blow on the head. The child lay in a state of insensibility, and was affected with convulsions. There was no wound of the scalp, but, on an attentive examination of the head, the fontanel appeared to be somewhat elevated. Mr. Chevalier was led, therefore, to make a crucial incision of the scalp, by dissecting up the corners of which he exposed the fontanel. He then made an angular incision of the right side of the fontanel, and raised the membrane forming it so as to expose the surface of the dura mater, beneath which the purple colour of extravasated blood was plainly to be seen. A puncture being made carefully with a lancet, the

blood issued at first with considerable force, spouting to the distance of a foot. Three or four ounces of blood escaped. The symptoms were immediately relieved, and the child recovered without any further unfavorable symptoms.\*

"The following case, which is still more remarkable, was communicated to me by Mr. OGLE, of Great Russell-street, in whose practice it occurred some years ago :

"A woman, who kept a cellar in Monmouth-street for the sale of second-hand linen, &c. fell from the street, head foremost, to the bottom of the cellar. When taken up, she was in a state of total insensibility. Mr. Ogle, being immediately sent for, found her lying as if in a fit of apoplexy. He ordered her head to be shaved ; and, on examining it afterwards, discovered no wound of the scalp, but observed that she flinched very much when pressure was made on one spot near the anterior and superior angle of one of the parietal bones. Having made an incision of the scalp at this part, he could perceive no appearance of fracture. Nevertheless, as the woman was manifestly in imminent danger, he thought it expedient to remove a portion of the bone with the trephine. Immediately on the bone being removed, the dura mater, of a dark colour, rose into the opening nearly as high as the external surface of the cranium. Convinced, from its appearance, and from the feeling of tension communicated to the fingers, that a fluid was interposed between it and the brain, and that that fluid was blood, Mr. Ogle ventured to puncture the dura mater with the point of a lancet. The puncture was instantly followed by a stream or jet of blood, which spirted out to the height of some feet. Immediately on the blood being discharged, the woman, who till that moment had continued totally insensible, opened her eyes. After looking about her, apparently amazed, she exclaimed, 'What is the matter? what are you doing with me?' and was able to give a clear account of the manner in which the accident had occurred. From this time she recovered without any untoward symptoms. It was impossible to ascertain the precise quantity of blood which escaped through the opening of the dura mater, but Mr. Ogle supposes it to have been about three-quarters of an ounce.

"But cases such as these are to be regarded as out of the common course of events. The ordinary cases of extravasation within the dura mater from injury are to be treated as we treat cases of apoplexy, or of paralytic seizure, in consequence of a blood vessel within the head being ruptured from disease ; on the same principle as that on which we treat other cases of internal hemorrhage. Take blood from the arm so as to reduce the force of the heart's action. Repeat this, or take blood by cupping, as soon as the pulse has recovered from the effect of the former bloodletting ; administer active saline purgatives ; let the head be shaved and bathed with a cold lotion, being kept at the same time in an elevated position ; and, although such a plan of treatment will not effect the cure of a patient who lies with stertorous breathing in a state of perfect stupor, many will recover under it in whom the symptoms of pressure have been very urgent. In some instances a slight improvement is perceptible from day to day, until, at the end of two or three weeks, the patient seems to be restored to his natural condition. In other instances his recovery is less complete, and a partial loss of nervous power may remain for many months ; or such a memorial of the accident as a dilated pupil, a be-

\* London Medical and Physical Journal, vol. viii. p. 505.



numbed hand, or a paralytic limb, may exist for a much longer period, for years, or even during the remainder of the patient's life."

There are many cases in which there is reason to believe that there is extravasation of blood within the cranium, although not in sufficient quantity to produce any formidable symptoms. It has been already observed that it is sometimes difficult to distinguish such cases from concussion of the brain. Fortunately, where the distinction is plain, it leads to no difference of treatment.

Fracture of the cranium frequently exists, with considerable depression of bone, while the patient suffers but slightly, or perhaps no symptoms at all exist. Here arises the important question, whether, under such circumstances, an operation should be performed for the purpose of removing the depression. From various facts which Mr. Brodie particularly enumerates, the following conclusion would be derived, that "it is most prudent to abstain from the use of the trephine where there is a fracture, with depression of the cranium, producing at the time no unfavorable symptoms." But much may be said on the other side of the question. Where a depression of the cranium is allowed to remain, it sometimes happens that symptoms arise after a considerable lapse of time, which may even endanger the life of the patient from the continuance of the depression, although it occasioned no inconvenience in the first instance. An instructive case in point is mentioned in which Sir EVERARD HOME, after three years had elapsed from the time of the accident, was induced to remove nearly the whole of the depressed bone with the trephine. The symptoms which existed before the operation were immediately relieved. After a candid consideration of the question, Mr. Brodie states—

"Whatever may have been my first impression on the subject, it appears to me at this moment that the views of Sir Astley Cooper are well founded; and that in those cases in which a depression of bone exists without any symptoms, or with only trifling symptoms arising from it, the surgeon can follow no better general rule than this: if the depression be exposed in consequence of a wound of the scalp, let him apply the trephine, and elevate the depression; but if there is a depression without a wound of the scalp in consequence of the accident, let him not make such a wound by an operation. An exception may, perhaps, be properly made with respect to very extensive depressions of the cranium, which it may be prudent to expose and elevate at all events, not because there is a greater danger of suppuration from these than from smaller injuries, but on account of the ultimate ill consequences which the patient may experience if the brain be left permanently subjected to a very considerable pressure."

*Treatment of contusions and wounds of the scalp.*—Extravasation of blood in the cellular texture of the scalp seems to require, for the most part, no particular attention. Punctured and incised wounds of the scalp require, in the first instance at least, no peculiar treatment. Mr. Brodie knows no reason why the parts should not be brought together with adhesive plaster, as in wounds elsewhere. Erysipelas not unfrequently follows a wound of the scalp, but it seems to occur equally whether the wound is dressed with adhesive plaster or in any other manner. Sometimes the parts will unite by the first intention. In other cases there will be no adhesion; or the adhesions may be partial, one part of the wound uniting, with suppuration in another. In this case much attention is required, lest the formation of abscesses in

certain places should do injury to the pericranium and bone, and destroy the adhesions in the neighbourhood.

*Treatment of fractures of the cranium unattended with depression.*—It appears to be the general opinion of modern surgeons, that in these cases where there is no evidence of any considerable extravasation between the dura mater and the bone, nothing but a strict antiphlogistic regimen is required. The use of the trephine is here not necessary, notwithstanding the practice and opinions of Mr. POTT, whose doctrines upon this subject are canvassed and refuted by Mr. Brodie. Fractures of the cranium, however, even without compression, are always to be regarded with a jealous eye, especially where the scalp is wounded, and the pericranium separated from the bone. In these cases there is much danger of the formation of matter between the dura mater and the bone.

*Treatment of wounds of the brain and its membranes.*—"Although the condition of the patient who labours under a wound of the brain, or dura mater, is essentially different from that of one in whom no such wound exists, the general treatment required in these two orders of cases is nearly similar; and bleeding, purgatives, low diet, and a state of perfect repose, form an important part of the remedies to be employed in cases of wounds, as well as in those of concussion and compression of the brain.

"The object of the local treatment, where there is a wound of the brain or its membranes, is not so much to relieve the existing symptoms as to prevent future ill consequences, the principal of which are (as I shall shew hereafter), first, inflammation extending from the wound over the membranes of the brain, and producing an effusion of serum and pus; secondly, inflammation, suppuration, sloughing, and dissolution of the substance of the brain; thirdly, protrusion of the brain, in the form of what is commonly denominated a *hernia cerebri*.

"A judicious surgeon will always bear in mind that, especially on those occasions, the first rule of his art is not to add to the mischief already done. If splinters of bone have penetrated into the brain, and can be removed with perfect facility, and without the smallest additional disturbances to the injured organ, such removal cannot be improper, and may probably be useful. Many persons, however, have recovered, in whom an opposite practice has been pursued. I saw a gentleman in whom detached fragments of bone remained imbedded in the brain, many months after he had received a wound in the head from a pistol bullet, and who suffered scarcely at all from the injury. Do not such cases justify us in leaving splinters of bone untouched, where there is any kind of obstacle to their easy extraction? Are they not even sufficient to show that any other mode of proceeding would be improper, and that it is better to leave the patient to take his chance with the splinters lodged in the brain, than to commit the smallest additional violence in an endeavour to remove them?

"A similar observation may be made respecting depressions of bone when complicated with wound of the brain. If the edge of the depressed bone be imbedded in the substance of the brain, it may be proper to restore it to its natural level, provided that this can be readily accomplished with the forceps or elevator. But individuals have recovered, in whom a depression of bone has been allowed, under these circumstances, to remain without being elevated; and it cannot be advisable to risk this chance of recovery, whatever it may be, if the elevation requires the application of such a degree of force as

is likely to cause the most trifling additional injury to the wounded brain. I have myself been led to doubt the expediency of applying the trephine in those cases in which there were no circumstances making the operation absolutely necessary. The motion of the saw must occasion more or less jar to the tender substance of the brain; and this, which may be of little consequence where the brain and its membranes are entire, may make a serious difference as to the degree of danger, where these parts are already lacerated and contused. There is, moreover, the same objection here as in other instances to the removal of any considerable portion of the parietes of the cranium, namely, the liability which it occasions to the formation of a hernia cerebri."

Mr. Brodie has not been able to discover, among all the works which he has consulted, a single instance of recovery from a wound of the posterior lobes of the cerebrum, of the cerebellum, or medulla oblongata; and in the great majority of cases in which a cure has taken place, the injury has been confined to the frontal bone, and that part of the brain which is covered and defended by it.

We do not remember to have perused any communication in which so great a mass of valuable practical information was condensed into so small a space. We earnestly recommend it to the attention of the student and practitioner.

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## COLLECTANEA.

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Floriferis ut apes in saltibus omnia libant,  
Omnia nos, illidem, depascimur aurea dicta.

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### PHYSIOLOGY.

*Transposition of the Viscera.*—In the *Annales de la Med. Phys.* (May 1828,) there is an account of a curious transposition of some of the viscera of the chest and abdomen. The subject of this phenomenon was a soldier, who had always enjoyed good health, but was killed in a duel. On inspecting the body, the liver was found in the left hypochondrium, and the spleen in the right. The liver was unusually pale; the gall-bladder very much distended with bile; the spleen was smaller and denser than usual. The cardiac opening of the stomach was turned to the right side, the pyloric to the left. In the chest, the heart was found occupying the right side of the thoracic cavity; and the peculiarities usually seen in the left lung here existed in the right. The man seemed to have been aware of something peculiar about him, for he often joked with his comrades, saying he was sure his heart was on the right side, whatever the faculty might say.

*Case of Rumination.*—In the same Journal (for April,) there is a case of rumination detailed. A young man, æt. seventeen, an armourer by trade, of strong constitution and sanguine temperament, from the age of nine, he had always felt the food he had taken, rise up into his mouth, about half an hour after swallowing it. He used to chew it over again, and swallow it the second time, without either pleasure or disgust. If ever he tried, by an effort of the will, to prevent this singular rising up of his food, he

was sure to bring on pain in the epigastric region. This lad is always hungry, and eats indifferently animal or vegetable food: he eats quickly, and sometimes, after eating, has the sensation of slight bitterness in the mouth. He has frequent colics of short duration, and is troubled with procidentia recti. If he drinks spirituous liquors, they are subjected to the same process of rumination. He enjoys perfect health.

*Inspiration of Inflammable Gas.*—This experiment was made by Signor GIACOMO CARDONE, in consequence of the difference of opinion on the effects of this gas on the lungs, entertained by SCHEELÉ, FONTANA, and others. The air being expelled from the lungs as much as possible, the mouth-piece of a bladder, containing thirty cubic inches of the gas, was applied to the mouth, and the gas inhaled at two inspirations. An oppressive difficulty of respiration, and a distressing constriction at the pit of the stomach, were the first sensations; these were followed by abundant perspiration, a general tremor over the whole body, seeming to commence at the knees; an extraordinary sense of heat, slight nausea, and violent headache. "My eyes," says Sig. G., "beheld things but indistinctly, and a deep murmuring sound was in my ears. After a short time, all these effects ceased, except that of heat, which increased in an alarming manner; but ultimately, by the abundant use of cold drinks, I was restored to my original state of health."—*Giornale di Fisica*.

#### PATHOLOGY.

*Case of Sanguineous Discharge from the Breasts.* By Dr. JACOBSON.—A woman, twenty-four years old, had enjoyed a very good state of health, excepting that she was frequently subject to bleedings from the nose, and determinations of blood to the head and chest. She married at the age of fourteen. She menstruated the following year for the first time, and continued perfectly regular. At the menstrual period, she always suffered considerable pain in the belly. At the age of seventeen she became pregnant, and during the first two months the menses continued regular. They then ceased; but reappeared on the sixth and seventh month, with the usual suffering. She went through her labour without any untoward symptoms.

Two months after her confinement, although she suckled her infant, the menstrual discharge returned. At this period her mind was much disturbed, and she was attacked with a very severe illness, at the commencement of which she had, during three or four days, a discharge of blood from the nails of both hands, and from the gums. In the course of some time she perfectly recovered.

She suckled for two years, the secretion of milk remaining plentiful, and the menses regular. When she weaned the infant, the secretion of milk still continued very abundant. It flowed almost constantly and freely from the breasts, and, when it ceased for a short period, she complained of pain and tension in the chest. Her health did not suffer from this continued discharge of milk. The breasts remained soft, and she still menstruated regularly.

She now suckled the child of a neighbour for eighteen months; and, whenever she had an opportunity, she gave the breast to other children, to relieve herself as much as possible from her inconvenient burthen.

She continued in this state for six years, when a physician promised to

cure her. She was successively bled, at short intervals, from both arms, the forehead, and from behind the ears. Immediately afterwards the secretion of milk ceased, and in its place a discharge of blood took place from both breasts, with violent pains extending towards the shoulders and neck. Night and day, with the exception of a very short cessation, this discharge of dark-coloured blood continued. It tinged the linen of a very deep colour, and gave it a fetid smell. It remained the same in quantity and quality during the periods of menstruation. In other respects the woman was in good health. The digestive powers were not deranged when she was free from pain. The breasts were so tender to the touch, that the slightest pressure upon them was insupportable. During either rainy or cold weather, when the discharge from the breasts diminished, the patient suffered severely from pains, nausea, and vomiting. She was soon attacked with hæmatemesis, and discharge of blood from the lungs. These symptoms were, however, relieved by acids and cooling drinks.

Leeches were now frequently applied to the vulva, and blood was taken from the feet; digitalis, prussic acid, and aperients, together with pediluvia, were also employed; the breasts were supported by a suspensory bandage, and they were carefully protected from every irritation. The disease, however, resisted every remedy.

After each discharge of blood from the lungs and stomach, she quickly recovered; but she remained subject to violent pains and spasms of the stomach, and vomiting from the slightest irregularity of diet or any mental exertion.—*Journal Complémentaire.*

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*Observations on the Anatomy and Diseases of the Kidneys and Ureters.* By J. BOUILLAUD, D.M.P.—Neither the structure nor pathological conditions of the kidneys have been so much attended to as other internal parts. M. ANDRAL, to whose pathological labours we are so much indebted, has passed over this part of the subject in silence. Even MORGAGNI has given but an imperfect sketch of it. In some subjects but one kidney is found. M. B. has met with one instance of this kind. The kidney was situated across the spine, and was furnished with two ureters: it was considerably larger than the ordinary size.

*Lobulated kidneys.*—M. B. has seen this conformation in four adult bodies. The external configuration of the kidneys resembled in some degree the hemispheres of the cerebrum. The lobes and sinuosities which refracted them represented the circumvolutions and inflexions of the brain. In one instance, two ureters proceeded from the right kidney, and, at the termination of about two inches, they united into one canal. The left kidney was naturally formed.

*Hypertrophy of the kidneys.*—M. B. has frequently met with this affection, and generally in only one kidney. It is recognised by the following appearances: The kidney is a quarter, or a third, or perhaps even one-half, larger than the natural size. Its substance is firmer, more compact, and redder. It is probable that in such cases the renal artery is enlarged, although this fact has not been determined. Hypertrophy of the kidney occurs under the influence of various causes, which determine to it an unusual quantity of blood. The most likely circumstance to produce this kind of plethora in one kidney is the existence of some obstruction to the passage of the blood to-

wards the other. It happens, consequently, that hypertrophy of one kidney is frequently detected when the other is in a state of atrophy. Hypertrophy of the heart, and of the external muscles, takes place equally under the same conditions which preside over the increased size of the kidney.

*Atrophy, or diminished nutrition of the kidneys.*—This disease M. B. has frequently seen. Its characters are diametrically opposite to those of hypertrophy of the organ. The size of the kidneys is less than natural; their substance is paler; they contain less blood, and appear shrunk. Whatever cause obstructs the current of blood to the kidneys may produce an atrophy of them. In every such instance, M. B. has been able to demonstrate a greater or less obstruction to the free circulation of the blood. The pressure of an enlarged spleen has sometimes produced atrophy of the left kidney. The right kidney has been similarly affected by the continued, yet gradual, pressure of an enlarged liver. In other organs, as the heart, the lungs, the breast, the testicle, pressure frequently causes the same diminution of size.

*Infiltration of urine, and cysts of the kidneys.*—M. B. observes that no pathologist has hitherto described this affection; it is not, however, very rare, but it may easily escape the observation of a careless practitioner; the following are the characters of it: on the surface of the kidneys may be seen several round vesicles, which raise the covering membrane of these organs. These vesicles appear to be small cysts in the substance of the kidney, and are probably formed by a certain quantity of urine, which has distended the uriniferous tubes, in consequence of some obstruction to the passage of the fluid. M. B. has seen some of these cysts as large as a cherry. Sometimes, instead of numerous vesicles, he has detached one large sac, which he presumed to have been formed from the union of several smaller ones, of which the parietes had ruptured. He has found the whole of the kidney transformed into one large sac, containing either a transparent serous, or turbid, fluid.

*Inflammation of the kidneys, and of the disorganizations which follow inflammation.*—In consequence of their peculiar structure, the kidneys do not easily become the seat of those disorganizations which result from inflammation. Nephritis is marked by the following appearances: redness, tumefaction, presence of pus, softening of the structure of the organ, abscesses, ulceration of the external surface, conversion of the parenchymatous substance into a tuberculous, or encephaloid matter, which is, in a great measure, the product of the diseased secretion of the affected kidney. Cysts, either on the surface, or in the substance of the kidney, may result from inflammation. In two or three cases, M. B. has found the kidney converted into a fatty yellowish substance. The symptoms of the various alterations which the kidneys occasionally undergo are very obscure; this circumstance will not be considered so extraordinary when we consider, first, that the deep seated situation of the kidney embarrasses our examinations; secondly, that derangement of the function of the kidneys produces similar symptoms to those which result from various affections of the bladder and ureters; thirdly, that pain is by no means a constant attendant upon renal disease. If we are to rely upon the statement of most pathologists, acute pain is the almost inseparable attendant upon inflammation of the kidneys; it is not denied that such is frequently the case, but M. B. affirms that he has observed the most decided marks of renal inflammation in the bodies of patients, who had never complained of pain in the region of the kidneys. This absence of pain may be more easily conceived, when we reflect that the kidneys in a natural state are but slightly sensible.

Violent pain is not seldom complained of in the region of the kidneys, when no disease of them is to be detected. The presence of a certain quantity of blood or pus in the urine, when there exists no disease of the bladder, is a symptom of some affection of the kidney; when to this symptom is united a smart attack of fever, the existence of nephritis may be strongly presumed. At the commencement of the disease, if both kidneys are affected, an almost total suppression of urine takes place. Chronic nephritis, like most other internal inflammations of a chronic character, produces a slow fever, which destroys the patient by throwing him into that state termed renal consumption. When the affected kidney continues the performance of its functions, the urine is much altered in its appearance, but sometimes it ceases to secrete; the urine being formed only by the healthy kidney, presents no unusual appearance, and the diagnosis of the disease is then extremely difficult. If both kidneys are simultaneously disorganised, so that a total cessation of the secretion of urine takes place, the same phenomena will occur as we observe in animals, in which both ureters are tied, or both kidneys removed, violent fevers quickly arises, and a strong smell of urine is exhaled from the body. Is hypertrophy of the kidneys ever the cause of diabetes? M. B. is not furnished with sufficient facts to justify him in giving a positive answer to this question, but he has observed hypertrophy of the kidneys where the patient had been affected with diabetes. The ureters, like all other parts of the body may suffer from inflammation, and undergo various alterations of structure in consequence; their canals may be much enlarged, diminished, or entirely obliterated; dilatation of the ureter may arise from any cause which obstructs the free passage of the urine into the bladder; contraction or obliteration may follow from any accidental compression from inflammation of the internal membrane which lines the cavity, or from the cessation of the passage of the urine through the canal, from the function of the kidney being no longer performed in consequence of disease. The symptoms of affections of the ureters are as obscure as those which attend diseases of the kidneys. If both canals are obliterated at the same time, death would speedily result; but if one ureter only is obstructed, the calibre of the other will be increased considerably, from the additional duty which it will have to perform under such circumstances. In support of these observations, M. Bouilland details several interesting cases.—*Hid.*

#### SURGERY.

*Case of urinary calculus lodged in the interior of the glans penis, and removed by incision.*—Dr. Schwartz, in the Journal of Græfe and Walther, mentions a case of this kind: A young naturalist, of lively temperament, in 1807, felt, in making water, that a rough and unequal body traversed the canal of the urethra, and fixed itself at the base of the glans; he was then nineteen years of age. As he was little incommoded by this, and nothing could be felt to the touch, he had nothing done for it. In the years 1814, 18, 19, he passed, at times, gravel with his water, and sometimes with great pain. The patient, not very attentive to his health, disregarded the increased size and hardness of the glans penis, believing it to be natural. In 1822, he married, and could perform all the duties of a husband without pain; he had children. Three years after marriage, the ardor urinae, which he had for a long time felt, increased much, and sometimes drops of blood followed. Violent neuralgic symptoms

made him consult a medical man in 1826, but no careful examination took place. Other symptoms, such as loss of appetite and sleep, depression of spirits, a wasting of flesh, and inflammation in the prepuce, induced him to consult a surgeon. Having subdued the inflammation of the prepuce, he was sounded, and a hard body was felt at the end of the urethra, situated in the fossa navicularis. The accompanying history left no doubt of the nature of the mischief: a director was introduced before the calculus, the upper part of the glans, as well as the prepuce, were divided by a cut of the bistoury, and the lips of the wound being separated, a calculus, occupying the whole of the glans, was seen, and was easily extracted; the whole of the cavity was slightly ulcerated. The operation was accompanied with less pain than making water latterly had been. It healed up perfectly; and, in fifteen days, he was able to resume his avocations, and since has enjoyed excellent health. Although the whole tissue of the glans was destroyed, and after the operation there remained only two thin folds of skin, yet it assumed a kind of natural appearance; but, in actu coitus, he thought the voluptuous feeling was diminished. The calculus had the form of a chestnut, solid, and was of a dirty white colour, with some red points. The circumference of the base, which was nearly circular was three inches seven lines; the greatest diameter was one inch and half a line; from the base to the top was one inch. Some days after the operation, the calculus weighed 284 grains.

#### CHEMISTRY.

*Citric Acid from Gooseberries.*—M. TILLOV, by the annexed process, has prepared citric acid from gooseberries, so as to be able to obtain it for twelve francs, ninety-six centimes the kilogramme; whereas the price of citric acid in France is from twenty-nine to thirty francs for the same weight.

The gooseberries are to be bruised and fermented; the alcohol is to be separated by distillation; the residuum is to be pressed, to extract the whole of the liquid. To this liquor, while hot, carbonate of lime is to be added as long as effervescence takes place: after standing, the citrate of lime is to be collected, and suffered to drain; it is to be repeatedly washed, and then pressed. The citrate of lime thus obtained, being still coloured and mixed with malate of lime, is to be mixed with water to the consistence of a thin syrup, and is then, while hot, decomposed with sulphuric acid, diluted with twice its weight of water. The liquid resulting from this operation is a mixture of sulphuric (malic?) and citric acid, and is to be again treated with carbonate of lime. The precipitate, when collected on a filter, is to be plentifully washed, pressed, and again mixed with sulphuric acid; the clear liquor, containing the acid, is to be decolorized by animal charcoal, and evaporated. When it is sufficiently concentrated, it is suffered to deposit, and the clear liquor poured off is put into stoves heated from 20° to 25° Centig. Coloured crystals are thus obtained, which are to be drained, slightly washed, and recrystallised.—*Journal de Pharmacie.*

*Blue Colour by the action of Muriatic Acid upon Albumen.*—Various unsuccessful experiments appear to have been made to produce this blue colour; first observed, we believe, by M. CAVENTOU. According to M. ROBIQUET, the more acid employed, the more readily is the blue colour produced, to a certain extent. He finds that seven or eight parts of acid to one part of albu-



men yield the most intense blue, even at a low temperature; but its development is favored by a temperature of 25° to 30° Centig.—*Ibid.*

*Decomposition of Ammonia by Metals.*—M. SAVART found that 141.91 grains of thin copper wire became 142.382 grains, or acquired an increase of 0.472 in weight, when used for four hours to decompose ammonia. As the wire was in a slight degree oxidised, the experiment was repeated; and, when every precaution was employed, the increase amounted to  $\frac{1}{75}$ ; and 0.105 of an unknown substance was absorbed by the copper, and its specific gravity was diminished from 8.8659 to 7.7919.

Iron also increases in weight, and diminishes in specific gravity, by similar treatment, and will strike fire with flint like ordinary steel.—*Ann. de Chim.*

*Corydalin, a new Vegetable Alkali.*—According to M. WACKENRÖDER, this alkali is contained in the root of the fumitory, (not the common fumitory, *Fumaria Officinalis*, but the *Fumaria Cava*, and *Corydalis Tuberosa* of DECANOLLE.) The dry root is to be coarsely powdered, and digested for some days in water; filter the infusion, and precipitate with excess of potash; dry the precipitate; and treat it with boiling alcohol until it ceases to dissolve any thing. It sometimes happens that, during the cooling of the alcohol, crystals of corydalin are deposited. The solution is to be evaporated to dryness, and the residuum is to be dissolved in weak sulphuric acid: this solution is then to be decomposed by an alkali, either caustic or carbonated. A white deposit is formed, which by drying becomes of a light gray colour.

Dry corydalin soils the fingers very much; it is insipid and inodorous. It is soluble in alcohol; and this solution, when hot and saturated, deposits colourless prismatic crystals of a line in length. By slow spontaneous evaporation, fine laminae are formed. The solution acts as an alkali upon vegetable blue colours. At a temperature below that of boiling water, it melts into a deep green-coloured fluid, which, when solidified, has a crystalline texture, and is transparent in thin laminae. At a higher temperature, it yields water and ammonia, and is converted into a transparent brown mass. Ether dissolves corydalin with the same facility as alcohol; caustic potash dissolves it in considerable quantity.

This alkali forms extremely bitter salts with acids; sulphuric acid forms two different salts; one which crystallises is obtained when the acid is digested with excess of base; the solution is to be filtered and evaporated: the product is very slightly soluble in water. When a small quantity of sulphuric acid is added to a solution of corydalin in alcohol, so as not to saturate the base perfectly, a portion of crystalline matter is deposited, and there remains a stratum of a greenish transparent substance, which is unalterable by exposure to the air, and readily soluble in water; the solution reddens litmus paper slightly; an excess of acid renders it purple, and eventually blackens it. Nitric acid, when diluted and cold, dissolves and forms a colourless solution with corydalin; but, when heated, it becomes of a red colour, which, when the solution is concentrated, becomes of a blood-red. This action is so strong that, by the aid of heat, the smallest quantity of corydalin may be discovered in a fluid. Muriatic acid forms with this alkali an uncrystallisable salt; acetic acid is still more difficult of combination with it than sulphuric acid; but it forms a crystalline salt, which may be redissolved a second time in water, and crystallised. Tannin is one of the most sensible

tests of corydalin, as for all other vegetable bones. The precipitate is white when the solution is dilute, and grayish yellow if concentrated.—*HENSMAN'S Repertoire de Chimie.*

### MISCELLANEOUS.

*Proportion of Male and Female Children.*—*M. BAILLY*, of the French Institute, has lately made a series of observations connected with the subject of the relative births of male and female children. From exact registers kept in one locality, it appears, he says, that there were more female conceptions than male conceptions in the months of March and July; and these two months, he observes, are, the first on account of the reoccurrence of warmth, and the second on account of the heat of the weather, the part of the year least favorable to the activity of the generative powers, at least with a view to fecundation.

*On the Species or Varieties in the Human Race.*—*LINNÆUS*, in his *Systema Naturæ*, divided men into four varieties, according to the colour of the skin; giving each variety the name of the part of the world where it was most common. *DUMÉVILLE* considers that there were six distinct varieties, which he names—1, Caucasian, or European Arabs; 2, Hyperborean; 3, Mongolian; 4, American; 5, Malay; 6, Ethiopian. *CUVIER* reduced the number of varieties to three. *VIZEY*, in his *History of Man*, divided the genus into two species, according to the facial angle, noting three varieties and sub-varieties to each species. *DESMOULINS* has lately further divided the genus man into eleven species; and *BORY SAINT VINCENT*, in a very elaborate paper on the varieties and species of this genus, has added four other species to this extended list; and has given the peculiarities, habits, manners, and appearances of each of the species, and an account of their probable origin. He divided the genus into two sections: the first he called *Leiotrichi*, or smooth-haired men, which he again subdivided into those which are peculiar to the old world, as, 1, *Homo Japeticus*, the sons of Noah, which he divided into several races; 2, *Homo Arabicus*, the Arabs; 3, *Homo Indicus*, the Hindoos; 4, *Homo Scythicus*, the Scythians; 5, *Homo Sinicus*, the Chinese. Secondly, those smooth-haired men which are common to the old and new world, as, 6, *Homo Hyperboreus*, the Laplanders; 7, *Homo Neptunianus*, the Malays and New Zealanders; 8, *Homo Australasius*, the New Hollanders. Thirdly, the straight-haired men which are peculiar to the new world, as, 9, *Homo Columbicus*, the Caribbees; 10, *Homo Americanus*, the Americans; and, 11, *Homo Patagonicus*, the Patagonians. The second section he designates by the name of *Oulotrichi*, or crisped-haired men, usually called negroes. The white varieties of this tribe are not known. 12, *Homo Ethiopicus*, the Ethiopians; 13, *Homo Cafre*, the Caffre; 14, *Homo Melaninus*, the Cochinese; and, 15, *Homo Hottentottus*, the Hottentots.—*Ann. Phil.*

¶ *White Cats with Blue Eyes, deaf.*—It is stated, in the *Magazine of Natural History*, that white cats with blue eyes are always deaf. A gentleman had a white Persian cat: she produced various litters, and of her offspring some were entirely white, and these were invariably deaf; but others were mottled, and all those which had the least speck of colour had the faculty of hearing as usual.

## INTELLIGENCE.

### MONTHLY REPORT OF PREVALENT DISEASES.

THE complaints met with in London during the last month have scarcely assumed such a decided character as to enable us to point out any as the prevailing disease. Those to which our attention has principally been directed have been cases of diarrhoea, occasionally, but not generally, accompanied with vomiting,—and continued fever, for the most part mild, but in some instances severe. Upon the whole, we think there is more disease in London at present than during the wet weather which so long prevailed in the earlier part of the season. There has been nothing to remark in the treatment of these fevers; and, with regard to the diarrhoea, we shall only observe, that there are very few cases which resist the *Hydrargyrum cum Creta*, either alone, or (when the stomach is not too irritable,) combined with Dover's powder. The usual dose has been five grains of each three times a day.

#### *Royal College of Surgeons in London.*

*Collegial Anatomical Prize.*—The Board of Curators announce, that the subject for the third prize is “An Inquiry into the ultimate Terminations of the Sanguiferous System, and the Commencements and Terminations of the Lymphatic System; explanatory of the means by which parts of the body are formed, maintained, altered, and removed; authenticated, as far as practicable, by Preparations.”

Candidates to be members of the College,—not of the Council.

Dissertations to be in English.

Each Dissertation to be distinguished by a motto or device; and accompanied by a sealed paper, containing the name and residence of the author, and having, on the outside, a motto or device corresponding with that on the Dissertation.

Dissertations to be addressed to the Secretary, and delivered at the College before Christmas day 1830.

The manuscript Prize Dissertation, and every accompanying drawing and preparation, will become the property of the College.

Dissertations which shall not be approved, with their accompanying drawings and preparations, and their correspondent sealed papers, will be returned, upon authenticated application, within the period of three years; and those manuscripts which shall remain three years unclaimed, together with their accompanying drawings and preparations, will become the property of the College; at which period the papers containing the names of the respective authors will be burned, unopened, in presence of the Board of Curators.

By order of the Board,

EDMUND BELFOUR, *Sec.*

*Lincoln's Inn Fields; 5th day of August, 1828.*

*Jacksonian Prize: R. Coll. of Surgeons, London.*—But one of the two prizes for the year 1827 having been adjudged, two prize-subjects are proposed for the year 1829, viz. “Encysted Tumors,” and “Bronchocele.”

No. 356.—No. 28, *New Series.*

3 B

Candidates to be members of the College.

Dissertations to be in English; and the number and importance of facts will be considered principal points of excellence.

Each Dissertation to be distinguished by a motto or device; and accompanied by a sealed paper, containing the name and address of the author, and having, on the outside, a motto or device corresponding with that on the Dissertation.

Dissertations to be addressed to the Secretary, and delivered at the College before Christmas day 1829.

The manuscript Prize Dissertation, and every accompanying drawing and preparation, will become the property of the College.

Compositions which shall not be approved, with their accompanying drawings and preparations, and correspondent sealed papers, will be returned, upon authenticated application, within the period of three years; and those manuscripts which shall remain three years unclaimed, and every accompanying drawing and preparation, will become the property of the College; at which period their accompanying papers, containing the names of the respective authors, will be burned, unopened, in the presence of the Jacksonian Committee.

The prize-subject for the present year, 1828, is "The Causes, Consequences, and Treatment of Inflammation of the several distinctions of Membrane." Dissertations upon which must be delivered at the College before Christmas day next.

By order,

EDMUND BELFOUR, Sec.

*Lincoln's Inn Fields; 19th day of August, 1828.*

*Regulations of the Council, respecting the Reading Room of the Royal College of Surgeons in London.*—The reading room of the College shall be open from ten till four every day, except on Saturdays and Sundays; except also during the month of August.

Members and articulated students of the College shall be admitted to the reading room.

Other persons, desirous of admission, shall send their applications in writing, (specifying their christian and surnames, rank or profession, and places of abode,) to the Board of Curators.

Admission will be granted for six months, at the expiration of which time application shall be made for a renewal of the permission.

All possible despatch shall be used in supplying readers with such books as they may require.

Readers taking extracts from any book, shall not lay the paper on which they write on any part of such book: nor shall any tracings be taken from any plate without the permission of the Board of Curators.

Readers are not to write on any part of a book belonging to the College; and if any one should observe a defect in any book, he is requested to communicate the same to the librarian.

N.B. The admission tickets are by no means transferable; nor may readers introduce friends, or amanuenses, without respective tickets.

By order,

EDMUND BELFOUR, Secretary.

*27th December, 1827.*

*Cambridge Examinations.*

IN our last Number we gave insertion to a letter, signed "JUSTUS," in answer to one bearing the signature of "VERAX" in our Number for August. VERAX has answered the letter alluded to in the pages of a contemporary and we subjoin his protest against the accuracy of JUSTUS, on the old principle of stating both sides of the question.

*To the Editor of the London Medical Gazette.*

SIR,—The Medical and Physical Journal of the 1st September contains a letter, signed JUSTUS, which comments on some observations of mine in the preceding Number accompanying the copies of the examination for the degree of M.B. at Cambridge.

I am well acquainted with the discipline of that university, and with the medical examinations during the last eight years, and also with the system pursued at Edinburgh and in London; and not ignorant of the nature of the medical examinations in the other capital cities of Europe. The charge, therefore, of ignorance of the subject falls to the ground.

I have now, therefore, to refer to the other charge—the only alternative left me by JUSTUS—of being "uncandid."

I repeat, I am well acquainted with the university and its institutions: it is the first time I have ever heard "that many of the most difficult questions were not expected to be answered at all;" and, from my personal knowledge, I can aver that the assertion is not correct.

The examination is a *bonâ fide* examination, as much so as that in Edinburgh or in London; and the best proof of this is, that candidates are not unfrequently rejected from the very circumstance of not answering questions which JUSTUS would make us believe were only *pro formâ*: I am acquainted with instances of such rejection.

In every examination, whether at Edinburgh or in London, a candidate is not rejected if he answers, either imperfectly or not at all, one or two out of many questions, unless such questions are so easy as to make ignorance of them quite disgraceful. In the same manner, at Cambridge, a man would not be rejected for not answering a difficult question as to a process in pharmacy, or an equivalent number in chemistry, although his ready answer to such questions would give a very favorable idea of the way in which he had employed his time, in addition to his knowledge on other subjects more immediately applying to medical science.

JUSTUS observes, "a printed list of all the questions are given him on his admission, and, by subsequent reference or study, he may become capable of understanding the whole." Not one word of this do I comprehend, for not one word of it is correct. The candidate has no knowledge whatever of the questions to be put to him previous to his entering the examination room, except that he is to have questions in anatomy, physiology, practice of physic, pharmacy, and chemistry, with portions of Hippocrates and Celsus for translation. It is needless to observe, that, neither in the schools nor in the professor's rooms, where these examinations are conducted, are there any means of reference whatever.

There is an insinuation, if possible, still more incorrect than these gross mis-statements; viz. "that these questions are selected, that, by their subsequent publication, the importance of a university education may be inferred

from the difficult examination which the candidates are hastily supposed to have passed."

The simple fact that these examinations have been instituted at least eight years; that the questions have, until lately, not even been printed, and never till last year I believe published, until I sent them to the Medical and Physical Journal, is the best answer to such an observation. I need hardly observe, that, were there the slightest foundation for such an observation, it would stamp the character of Professor HAVILAND with obloquy, (a name above reproach,) and taint even that of the university.

I have then, sir, only to repeat, that the examination is a *bonâ fide* examination; that the questions are expected to be answered; and that, if the majority are not answered,—aye, and well too,—the candidate is not admitted to his degree.

I retract, therefore, sir, not one word contained in my first letter; and, if it be necessary, I can bring forward men of the highest character and honour, members of the university, who, like myself, have personal knowledge of these facts, who are ready to give their testimony to that statement being essentially correct. I am, sir, your obedient servant,

VERAX.

*New Effervescing Chalybeate.*—Messrs. LAMING and Co., of Bishopsgate street, have contrived a saline aperient, (very much resembling Cheltenham salts,) which is administered in a state of effervescence, and which we are informed makes an excellent substitute for the common Seidlitz powder.

*Return, shewing the Number of Pupils at different Anatomical Schools.*

1826.				1827.				
	No. of Pupils entered to Anatomy.	No. to Dissecting Room.	No. who have actually Dissected.	No. of Bodies actually Dissected.	No. of Pupils entered to Anatomy.	No. to Dissecting Room.	No. who have actually Dissected.	No. of Bodies actually Dissected.
St. Bartholomew's Hospital, Mr. Abernethy	172	150	—	85	176	160	—	85
Guy's Hospital, .. Mr. B. Cooper	84	86	151	80	81	88	142	86
St. Thomas's Hospital, Mr. Green	167	—	121	70	133	—	145	70
London Hospital, Mr. Headington	60	45	40	42	—	—	—	—
Great Windmill-street, Mr. Mayo	79	71	95	90	82	60	94	70
Webb-street School, Borough, Mr. Grainger	125	125	—	112	142	142	—	95
Little Dean-street, Soho, Mr. Bennett	38	30	30	30				
Chapel-street, Grosvenor-square, Mr. Sleigh	50	50	45	15				
Dean-street, Soho, .. Mr. Carpue	30	30	20					
Howland-street, Fitzroy-square, Mr. Tuson	17	17	14	8				
Aldersgate-street, .... Mr. Tyrrell	42	46	46	28	46	55	54	39
Little Windmill-st. Mr. Dermott	45	51	30-35	30-35	50	43	30-35	30-35

**MR. LAWRENCE'S Election into the Council.**—**MR. LAWRENCE** has been elected a member of the council of the College of Surgeons. The nomination is said to have been made by **MR. ABERNETHY**, and seconded by **Sir A. COOPER**. It is also said that the council were much divided on the subject of his admission; but the general opinion seems to be that his election is calculated to advance the interests of the profession, by removing some of those subjects of dissension which have of late years disturbed it.

#### ANATOMY.

We subjoin the Report of the Committee appointed by Parliament to inquire into the sources of the difficulties in procuring the requisite supply of subjects for dissection. The document is drawn up with great care, and is the result of much and laborious investigation. It does not admit of curtailment without injury, and we have therefore presented our readers with it at full length. The principal suggestions thrown out are—that the law should be repealed which consigns the bodies of murderers to dissection; and that those dying in institutions supported by the public should, under certain restrictions, be used for anatomical purposes. By these means it is supposed the prejudices against the practice would gradually be got rid of, and the disgusting expedient of exhumation entirely abolished. Some change in the present state of matters is imperatively called for; as it appears, besides the great difficulty of getting the requisite supply of subjects, that there is scarcely a student or teacher of anatomy throughout the kingdom who, under the present law, “is not indictable for a misdemeanour.”

The number of witnesses examined was very great, and comprehended persons of various ranks and professions; and, although their evidence differs in some particulars, there is nevertheless an astonishing accordance on the most important points.

#### *Report of the Select Committee on Anatomy.*

The Select Committee appointed to inquire into the manner of obtaining subjects for dissection in the schools of Anatomy, and into the state of the law affecting the persons employed in obtaining or dissecting bodies; and to whom several petitions for the removal of impediments to the cultivation of the science of anatomy were referred; and who were empowered to report the minutes of evidence taken before them; have, pursuant to the order of the House, examined the matters to them referred, and agreed to the following Report:

The peculiar nature of the subject which the committee were appointed to investigate, has induced them to inquire principally into the practice of the anatomical schools of London, where, by personal communication with the most eminent surgeons, and with the students and principal teachers of anatomy, it could be fully ascertained that no detriment to their interests was to be apprehended from the publicity to arise out of the present inquiry. With regard to the practice of the provincial schools, to avoid the expence of summoning witnesses from a distance, they have been satisfied with written communications from resident professors or practitioners of eminence, which will be found in the Appendix.

The committee have inquired into the nature of the difficulties which the anatomists have here to contend with, whether arising out of the state of the law, or an adverse feeling on the part of the people; and into the evil conse-

quences thence ensuing, as well to the sciences of medicine and surgery, as to all who study, teach, and practise them, and eventually to the members of the whole community. They have called witnesses to shew in what manner the wants of the anatomist are provided for in several foreign schools, and to state their opinion whether similar methods could be applied with advantage in this country, and, if applied, would be adequate to remove the present difficulties.

The first origin of these difficulties is obviously to be traced to that natural feeling which leads men to treat with reverence the remains of the dead; and the same feeling has prompted them, in almost all times and countries, to regard with repugnance and to persecute anatomy.

As the importance of the science to the well-being of mankind was discovered, the governments of different states became its protectors, and in this country particularly, by the statute of Henry the VIIIth, protection to a certain extent was given, and intended to be given to it; but that protection, which at first perhaps was fully adequate, owing to the rapid progress of the science, has long since become wholly insufficient.

How limited were the wants of the science in the former part of the last century, may be learnt from the lectures of Dr. William Hunter, who describes the professors of the most celebrated schools, both at home and abroad, as employing in each course of lectures not more than one, or at most two, subjects, and as exhibiting the performance of the operations of surgery, not on human bodies, but on those of animals. He represents the students in medicine and surgery as never exercising themselves in the practice of dissection, because for such practice they had no opportunities.

For such a system of instruction the provisions of the statute of Henry the VIIIth might well be adequate, and these provisions, indeed, may now be considered of importance only as a distinct admission of the principle that the government of this country ought to protect anatomy. The reformation of this antiquated and imperfect system took place, in this country, in the year 1746, when Dr. William Hunter, having a singular enthusiasm for the science, established complete courses of anatomical lectures, and opened a regular school for dissection. The reform thus introduced was complete, and its author exulted before his death in having raised and diffused such a spirit for dissection, that he should leave behind him many better anatomists than himself.

Under his immediate pupils, and their successors, this school has gone on increasing. The earliest account that the committee have met with of the number of anatomical students resorting to London, is that given by Mr. Abernethy, who states that, shortly after the breaking out of the war with France, they amounted to 200. One of the witnesses, Dr. Macartney, computes their number, in the year 1798, at 300; and Mr. Brookes, a teacher of anatomy, in a calculation submitted to Sir Astley Cooper in the year 1823, then reckoned their number to be 1000. It appears from the returns now furnished by the teachers of the different schools in London, that the number at present is somewhat above 800; the diminution in the number since the year 1823 being the consequence, probably, of the pupils resorting to foreign schools, the advantages of which were less known at the former period than they are at present.

When it is considered what a demand there is for practitioners, as well to meet the wants of an increased population at home, as of an extended empire



of colonies and dependencies abroad, this rapid increase of students will not appear surprising; and if it is considered, also, that not only is that demand an increasing one, but that every practitioner, however humble, from that laudable desire for intellectual improvement which characterises the present age, endeavours, if he can afford it, to obtain a good education, and must regard himself as ill educated if he has not gone through a course of dissection, the eventual increase of dissecting students can hardly be calculated, should their wants be supplied abundantly and at a cheap rate.

Although the students now attending the schools of anatomy in London exceed 800, not more than 500 of this number actually dissect. The duration of their studies in London is usually sixteen months, and during that time the number of subjects with which every student in surgery ought to be supplied, appears from the evidence (although there is some difference on this point) to be not less than three; two being required for learning the structure of the parts of the body, and one the mode of operating. The total number of subjects actually dissected in the schools of London, in one year, is stated to be not greater than from 450 to 500, which is after the rate of less than one subject for each dissecting student; a proportion wholly insufficient for the purposes of complete education.

Dissection, on an extended scale, began in this country before there existed any such general feeling in its favour, founded on an opinion of its utility, that the British government, after the example of some foreign governments, would venture openly to patronise it. Accordingly, when, in 1763, Dr. Hunter proposed to build an anatomical theatre, and to endow it with his museum and a salary for a professor, provided the government would grant him a site of ground for the institution, and his late Majesty would extend to it his countenance and protection, he met with a silent refusal. It was therefore only by stealth, and by means not recognised by the law, that the teacher was enabled to procure subjects. These means, it is notorious, from the time of Dr. Hunter down to the present time, have been principally disinterment; though, of late, other illegal modes and contrivances, such as stealing before burial, personation of relatives for the purpose of claiming bodies, &c. have occasionally been had recourse to. For some time after the first establishment of dissecting schools, while the number of teachers and students was small, and the demand for subjects very limited, the means which were resorted to for obtaining a supply were adequate to the wants of the students, and bodies were obtained in abundance and cheaply. The exhumators at that time were few, and circumspect in their proceedings; detection was rare; the offence was little noticed by the public, and was scarcely regarded as penal; so that (according to one of the witnesses) long after the decision of the judges, in 1788, that disinterment was a misdemeanour, prosecutions for this offence were not common, and offenders taken in the fact were usually liberated. If this state of things had continued, though the illegality of the practices had recourse to must be conceded, yet they could scarcely be said to occasion evils of such magnitude as to require a legislative remedy. But the number of students and teachers having greatly increased, and, with them, the demand for subjects and the number of exhumators, detections became frequent, the practice of exhumation notorious, and public odium and vigilance were directed strongly against the offenders. It may be collected from the debates in Parliament which took place in the year 1796, during the progress of a Bill for subjecting to dissection the bodies

of felons executed for burglary and robbery, that even at that time the public regarded disinterment with strong feelings of jealousy.

In proportion as the public became vigilant, the laws relating to sepulture were interpreted and executed with increasing rigor; and, as the price of subjects rose with the difficulty of obtaining them, the premium for breaking the laws increased with the penalty. The exhumators increased in number, and, being now treated as criminals, became of a more desperate and degraded character.

The parties of daring men who now took to raising bodies, did it happen (as was frequently the case) that, while in pursuit of the same spoil, they fell in one with another, actuated by vindictive feeling, and regardless of the caution and secrecy on which the successful continuance of their hazardous occupation must depend, had contests in the places of sepulture,—left the graves open to public gaze,—or gave information to magistrates, or the relatives of the disinterred, against their rivals. Frequently, with a view to raise the price of subjects, to extort money, or to destroy rivalry, they have proceeded to acts of outrageous violence, tending to excite the populace against the teachers of anatomy. These, and similar acts of violence or imprudence, have been constantly bringing exhumation to light, and have exasperated the public both against the exhumator and the anatomist: and this to such a degree, that of late, in many cases, individuals, out of solicitude to guard the dead, have taken upon themselves to dispense with the laws of their country, and have fired upon parties attempting disinterment. Other circumstances, but of minor importance, have been assigned by some of the witnesses as augmenting the difficulty of obtaining subjects in London, or increasing the demand for them; but, as regards them, the committee beg leave to refer to the evidence itself. The general result has been, with some difference, according to differences of place and season, (sometimes owing to the caprice and mercenary motives of the agents employed, at other times owing to the real difficulty of obtaining a supply,) that, of late, subjects have been to be procured, either not at all or in very insufficient quantity, and at prices most oppressive to the teacher and student.

The price of a subject, about thirty years ago, was from one to two guineas; the teacher now pays from eight to ten guineas; and the price has risen even to sixteen guineas. The teachers deliver subjects to their dissecting pupils at a lower price than that at which they purchase them, having been compelled to resort to this expedient, lest dissection in London should be abandoned altogether. The loss which they thus sustain is made good out of the fees which they receive for attendance on their lectures in the anatomical theatre. The cost of providing subjects is also enhanced to the teacher, by his being required occasionally to defend the exhumator against legal prosecution, and to maintain him against want, if sentenced to imprisonment, and his family, (in case he has one,) until the period of his punishment expires.

Nor is it only of a precarious, insufficient, and expensive mode of obtaining subjects, that the cultivators of anatomy complain: it is by the law, not as regards the exhumators, but as it affects themselves, that they are aggrieved.

The first reported case of a trial for disinterment is that of *Rex v. Lynn*, in the year 1788, when the Court of King's Bench, on a motion for an arrest of judgment, decided it to be a misdemeanour to carry away a dead body

from a churchyard, although for the purpose of dissection, as being an offence *contra bonos mores* and common decency. In this state the law on the subject of disinterment, as interpreted by the Court of King's Bench, appears to have remained until the present year; when Davis and another were tried and convicted at the assizes at Lancaster, and subsequently received the sentence of the Court sitting at Westminster, for having taken into their possession, with intent to dissect, a dead body, at the time knowing the same to have been unlawfully disinterred. A respectable teacher of anatomy, residing at Liverpool, had been tried and found guilty on a similar indictment at the quarter sessions at Kirkdale, in the month of February in the same year. With these exceptions, magistrates appear hitherto to have taken no cognizance of receiving into possession a dead body, unless there were strict evidence that the receiver was a party to the disinterment; and on this practical view of the state of the law professional men also appear hitherto to have acted. At present, however, a most intelligent magistrate, one of the witnesses, considers that very slight evidence would connect the receiver with the disinterment; and that the purchase from the exhumator would suffice to send the case to a jury, the knowledge of the fact of disinterment being to be collected from the circumstances, if strong enough to justify the inference. It is stated that there is scarcely a student or teacher of anatomy in England who, under the law, if truly thus interpreted, is not indictable for a misdemeanour.

According to the opinion of the last-cited witness, to be a party to the non-interment, as well as to the disinterment of a dead body, would render a person indictable for a misdemeanour. Two cases are cited in support of this opinion. In the one, *Rex v. Young*, a non-reported case, but referred to by the Court in the case of *Rex v. Lynn*, the master of a workhouse, a surgeon, and another person, were indicted for, and convicted of, a conspiracy to prevent the burial of a person who died in the workhouse. In the other, *Rex v. Cunnick*, which occurred at the Surrey spring assizes, in the year 1822, the defendant was found guilty on an indictment for a misdemeanour, charging him with not having buried the body of an executed felon, entrusted to him by the gaoler of the county for that purpose, but with having sold the body for lucre and gain, and for the purpose of being dissected: and, on this trial, it was not considered necessary to prove that the body had been sold for lucre, or for the purpose of dissection. The witness infers, from the analogy of all these cases, that to treat a dead body as liable to any thing but funeral rites, is an offence *contra bonos mores*, and therefore a misdemeanour.

This state of the law is injurious to students, teachers, and practitioners, in every department of medical and surgical science, and appears to the committee to be highly prejudicial to the public interests also.

It is the duty of the student to obtain, before entering into practice, the most perfect knowledge he is able of his profession, and for that purpose to study thoroughly the structure and functions of the human body; in which study he can only succeed by frequent and repeated dissection. But his wants cannot be adequately supplied in this country, except at an expence amounting nearly to a prohibition, which can be afforded only by the most wealthy, and precludes many students from dissecting altogether. From the precariousness or insufficiency of the supply, the dissections and lectures are often suspended for many weeks, during which the pupils are exposed to the danger of acquiring habits of dissipation and indolence; and, from the same

causes, that important part of surgical education is usually omitted, which consists in teaching how to perform on the dead body those operations which the student may afterwards be required to practise on the living. Not only does the student find dissection expensive and difficult of attainment; but he cannot practise it, without either committing an infringement of the law himself, or taking advantage of one committed by others. In the former case, he must expose himself to imminent hazard; and, in either, he may incur severe penalties, and be exposed to public obloquy. The law, through the medium of the authorities entrusted with conferring diplomas, and of the Boards deputed by them to examine candidates for public service, requires satisfactory proof of proficiency in anatomical science, although there are no means of acquiring that proficiency without committing daily offences against the law. The illegality and the difficulties attending the acquisition of the science dispose the examiners, in some cases, to relax the strictness of their examination, and induce them, in the case of the Apothecaries' Company, to dispense with dissection altogether: the persons to whom certificates are granted by the examiners of this company being those who, from their numbers\* and extensive practice, ought especially, for the safety of the public, to be well instructed. The annual number of certificates so granted exceeds 400.

The teacher of anatomy, besides the evils which befall him in common with the student, has to suffer others, arising also out of the state of the law, which affect him with peculiar hardship. The obstacles which impede the study of anatomy in this country are such, and the facilities presented to the study in foreign countries are so great, that those English students who are desirous of obtaining a thorough knowledge of the science desert the schools at home, and repair to those abroad. Their principal resort is to Paris, where 200 English students of anatomy are now pursuing their course of instruction. Dissection, probably, under these circumstances, would scarcely be followed at home, were it not for the regulations of the College of Surgeons, which require the candidates for the diploma of the College to have learned the practice of surgery in a recognised school within the United Kingdom; so that the student, during the period required for learning this practice, in order that he may the sooner become qualified for his profession, employs a part of his time in learning also to dissect. These disadvantages, affecting the teacher, are such, that, except in the most frequented schools, attached to the greater hospitals, few have been able to continue teaching with profit, and some private teachers have been compelled to give up their schools. To the evils enumerated it may be added, that it is distressing to men of good education and character to be compelled to resort, for their means of teaching, to a constant infraction of the laws of their country, and to be made dependent for their professional existence on the mercenary caprices of the most abandoned class in the community.

But it is not only to the student, while learning the rudiments of the science, and to the teacher, while endeavouring to improve it, that dissection is necessary, and the operation of the law injurious. It is essential also to the practitioner, that, during the whole course of his professional career, he should dissect, in order to keep up his stock of knowledge, and to practise frequently on the dead subject, lest, by venturing to do so unskilfully on the

\* Computed at 10,000 in England and Wales.

living, he expose his patients to imminent peril. He is required also, in many important cases, civil and criminal, to guide the judgment of judges and of jurors, and would be rebuked were he to confess, upon any such occasion, that, from having neglected the practice of dissection, he was unable to throw light upon a point at issue in that science which he professed. He is liable, in a civil action, to damages for errors in practice, due to professional ignorance; though at the same time he may be visited with penalties as a criminal for endeavouring to take the only means of obtaining professional knowledge.

Under these circumstances, affecting equally the student, teacher, and practitioner, the committee were not surprised to find that this inquiry excited considerable interest in all parts of the country, and that numerous petitions from all classes of the profession, connected with the science of anatomy, were laid upon the table of the House, uniformly praying for an amendment of the existing law on the subject.

But, independently of the bearings of the question on the interests of medical practitioners, and on the health of the community, the system pursued is productive of great evil, by training up a race of men in habits eminently calculated to debase them, and to prepare them for the commission of violent and daring offences. The number of persons who, in London, regularly live by raising dead bodies, is stated, by the two police officers examined before the committee, not to exceed ten; but the number of persons occasionally employed in the same occupation is stated by the same witnesses to be nearly 200. Nearly the whole of these individuals, as is admitted by the exhumators themselves who were examined before the committee, are occupied also in thieving, and form the most desperate and abandoned class of the community. If, with a view to favor anatomy, exhumation should be allowed to continue, it appears almost a necessary consequence that thieves also should be tolerated. It should seem useless, however, with a view to suppress exhumation, to endeavour to execute the existing laws with increased severity, or to enact new and more rigorous ones. The effect of interpreting and executing the laws with increasing rigor has been, not to suppress exhumation, but to raise the price of bodies, and to increase the number of exhumators. So long as there is no legalised mode of supplying the dissecting schools, so long the practice of disinterment will continue: but, if other measures were devised, which would legalise and ensure a regular, plentiful, and cheap supply, the practice of disinterring bodies, and of receiving them, would, of necessity, be entirely abandoned.

Before adverting to those new methods for obtaining an adequate supply of subjects, which have been suggested by the witnesses who have been examined before the committee, they will state in what manner, according to the evidence adduced, the schools of anatomy at Paris are provided. They have also inquired into the practice of some other foreign schools, for an account of which they beg to refer to the evidence itself; and they dwell upon the practice of the schools of Paris, because it approaches most nearly to the plan recommended by most of the witnesses for adoption in this country.

The administration of all the hospitals at Paris, since the period of the revolution, has been confided to a public board of management. The rule at the hospitals is, that every patient who dies shall be attended by a priest, and that, after the performance of the usual ceremonies of the Catholic church,

the body shall be removed from the chapel attached to the hospital, to the dead room, and there remain for twenty-four hours, if not sooner claimed by the relatives. Bodies may be examined after death, by the medical officers attached to a hospital, in order to ascertain the cause of death; but may not be dissected by them. A body, if claimed by the friends after examination, is sewed up in a clean cloth, before being delivered to them. If not claimed within twenty-four hours after death, after being enveloped in a cloth in a similar manner, it is sent, in the manner hereafter described, to one of the dissecting schools.

There are no private dissecting schools at Paris, but two public ones; that of the *Ecole de la Médecine*, and that adjoining the *Hôpital de la Pitié*. These are supplied exclusively from the different hospitals and from the institutions for maintaining paupers, the supply from certain of these establishments being appropriated to one school, and that from the remaining establishments to the other.

The distribution of subjects to the two schools is confided to a public officer, the *Chéf des travaux Anatomiques*. He causes them to be conveyed from the hospitals, at an early hour, in a covered carriage, so constructed as not to attract notice, to a building at the schools, set apart for that purpose. They are then distributed by the *prosecteurs* to the students; and, after dissection, being again enveloped in cloth, are conveyed to the nearest place of interment.

The students at the *Ecole de la Médecine* consist of young men who have distinguished themselves at a public examination, though the person at the head of the establishment is also allowed to admit pupils to dissect. The school of la *Pitié* is open to students of all nations, who, on entering themselves, may be supplied with as many subjects as they require, at a price varying, according to the state in which the body is, from three to twelve francs; priority of choice, however, being given to the *élèves internes* of the different hospitals, and the subjects being delivered to them at a reduced price. English surgeons were here permitted, until lately, to engage private rooms for the purpose of lecturing on anatomy to students of their own nation, and to superintend their labours in the dissecting room. From the protection and facilities which have thus been afforded to the study of anatomy at Paris, it has become the resort of the medical students of all nations; the practice of exhumation is wholly unknown, and the feelings of the people appear not to be violated.

It is the opinion of almost all the witnesses that the adoption in this country of a plan similar in most respects to that which prevails in France, would afford a simple and adequate remedy for the existing evils. They recommend that the bodies of those who during life have been maintained at the public charge, and who die in workhouses, hospitals, and other charitable institutions, should, if not claimed by next of kin within a certain time after death, be given up, under proper regulations, to the anatomist; and some of the witnesses would extend the same rule to the unclaimed bodies of those who die in prisons, penitentiaries, and other places of confinement. In the hospitals which supply subjects to the anatomical schools of France and Italy, religious rites are paid to the dead, before giving up the bodies for dissection: in the plan proposed for this country, most of the witnesses recommend that the performance of religious rites should be deferred until after dissection, and they are anxious that the anatomist should be required, under adequate secu-

rities, or a system of effective superintendence, to cause to be administered, at his own expense, to the bodies which he dissects, religious solemnities and the usual rites of burial.

The plan proposed has this essential circumstance to recommend it, that, provided it were carried into effect, it would yield a supply of subjects that, in London at least, would be adequate to the wants of the anatomist. The number of anatomical students resorting annually to London, and the number of subjects with which they ought to be supplied, have been already stated. It appears from the returns obtained by the committee, from 127 of the parishes situate in London, Westminster, and Southwark, or their immediate vicinity, that out of 3,744 persons who died in the workhouses of these parishes in the year 1827, 3,103 were buried at the parish expense; and that, of these, about 1,108 were not attended to their graves by any relations. There are many parishes in and around London from which, at the time of making this report, returns had not been delivered in; but it may be inferred from those returns which have been procured, that the supply to be obtained from this source alone would be many times greater than that now obtained by disinterment; that, when added to the supply to be derived from those other sources which have been pointed out, it would be more than commensurate to the wants of the student, and consequently that the plan, if adopted, as meeting the exigencies of the case, would eventually be the means of suppressing the practice of exhumation.

If it be an object deeply interesting to the feelings of the community that the remains of friends and relations should rest undisturbed, that object can only be effected by giving up for dissection a certain portion of the whole, in order to preserve the remainder from disturbance. Exhumation is condemned as seizing its objects indiscriminately,—as, in consequence, exciting apprehensions in the minds of the whole community, and as outraging in the highest degree, when discovered, the feelings of relations. If selection, then, be necessary, what bodies ought to be selected but the bodies of those who have either no known relations whose feelings would be outraged, or such only as, by not claiming the body, would evince indifference on the subject of dissection. It may be argued, perhaps, that the principle of selection, according to the plan proposed, is not just, as it would not affect equally all classes of the public; since the bodies to be chosen would necessarily be those of the poor only. To this it may be replied, first, that even were the force of this objection to a certain degree admitted, yet that, to judge fairly of the plan, its inconveniences must be compared with those of the existing system; which system, according to the evidence adduced, is liable in a great measure to the same objection, since the bodies exhumated are principally those of the poor; secondly, that the evils of this, or of any other plan to be proposed on this subject, must be judged of by the distress which it would occasion to the feelings of surviving relations; and the unfairness to one or another class of the community, by the degree of distress inflicted on one class rather than another; but, where there are no relations to suffer distress, there can be no inequality of suffering, and consequently no unfairness shown to one class more than another.

One or two of the witnesses, who appear to be either favorable or not opposed to the principle of the plan, speak with doubt of its success, as though it would be found impracticable to reconcile the public to its introduction; and one, in particular, apprehends that religious feelings may impede its

adoption. An objection founded on religious feelings does not apply to the plan in question only, but would be equally valid, generally, against all dissection whatsoever; and should lead those who urge it, consistently with their own principles, to endeavour to put down altogether the study of practical anatomy.

Though it may be true that the public are, to a certain degree, averse to dissection, yet it is satisfactory to find several of the witnesses adducing facts to prove that those feelings of aversion are on the decline. They state that in those parish infirmaries where the bodies of those who die are examined, as the practice has become common, it has been viewed with less jealousy; that in those hospitals where a similar rule prevails, neither patients themselves are deterred from applying for admission, nor their relatives on their behalf; that the addition of public dissecting rooms to hospitals has not produced any diminution in the number of applications for relief within the walls of those hospitals; and that, by reasoning with the friends of those who die, and by explaining to them how important it is to the art of healing that examination should take place after death, they may usually be brought to consent to the bodies of their friends being examined. Hence it is argued that, in involving the subject of dissection in mystery, as has hitherto been the case, the public have been treated injudiciously; that, with proper precautions, and the light of public discussion to guide them, they may be made to perceive the importance of the study generally, and the reasonableness of the particular measure now contemplated, and that, when they come to regard it as the means of suppressing exhumation, they will receive it with favor, and finally acquiesce in it.

The legislative measure which most of the witnesses are desirous of, in order to enable them to carry the plan into effect, is the repeal of any existing law which would subject to penalties those who might be concerned in carrying the proposed plan into execution: they wish for an enactment, permissive and not mandatory, declaring that it shall not be deemed illegal for the governors of workhouses, &c. and for anatomists, the former to dispose of, the latter to receive and to dissect, the bodies of those dying in such workhouses, &c.; such bodies not having been claimed, within a time to be specified, by any immediate relations, and due provision being made for the invariable performance of funeral rites. Some few of the witnesses, indeed, who state that they wish for the success of the plan, contemplate any legislative interference whatever in this matter with apprehension; but they do not appear to have been aware how nearly the cases decided by the courts of law, and already adverted to, would apply to persons engaged in executing the plan in question. In those cases the bodies, for the non-burying of which the defendants were severally convicted, were those of a pauper who died in a workhouse, and of a person who had suffered death as a felon. If these cases apply, as it appears they do, to persons engaged in giving up or in receiving, for other purposes than for burial, the bodies of the inmates of workhouses or of prisons, such impediments to the success of the plan cannot be removed, as these witnesses think they might be, simply by the favorable interference of the executive government, however disposed to show indulgence to the profession; but an Act of the legislature can alone provide a remedy.

Amongst the measures that have been suggested for lessening the dislike of the public to dissection, is that of repealing the clause of the Act of George



II. which directs that the bodies of murderers shall be given up to be anatomised. It appears from the returns already laid before the House, that, as regards the direct operation of this clause on the supply of subjects, the number which it yields to the anatomist is so small in comparison of his total wants, that the inconvenience which he would sustain from its repeal would be wholly unimportant. As to its remote operation, almost the whole of the witnesses examined before the committee, and of those whose written communications will be found in the Appendix, are of opinion that the clause in question, by attaching to dissection the mark of ignominy, increases the dislike of the public to anatomy, and they therefore are desirous that the clause should be repealed.

The committee would be very unwilling to interfere with any penal enactment which might have, or seem to have, a tendency to prevent the commission of atrocious crimes; but, as it may reasonably be doubted whether the dread of dissection can be reckoned amongst the obstacles to the perpetration of such crimes, and as it is manifest that the clause in question must create a strong and mischievous prejudice against the practice of anatomy, the committee think themselves justified in concluding that more evil than good results from its continuance.

The committee consider that they would imperfectly discharge their duties if they did not state their conviction of the importance to the public interests of the subject of their inquiries. As the members of the profession are well educated, so is their ability increased to remove or alleviate human suffering. As the science of anatomy has improved, many operations formerly thought necessary have been altogether dispensed with; most of those retained have been rendered more simple; and many new ones have been performed, to the saving of the lives of patients, which were formerly thought impossible. To neglect the practice of dissection, would lead to the greatest aggravation of human misery; since anatomy, if not learned by that practice, must be learned by mangling the living. Though all classes are deeply interested in affording protection to the study of anatomy, yet the poor and middle classes are the most so: they will be the most benefited by promoting it, and the principal sufferers by discouraging it. The rich, when they require professional assistance, can afford to employ those who have acquired the reputation of practising successfully. It is on the poor that the inexperienced commence their practice, and it is to the poor that the practice of the lower order of practitioners is confined. It is, therefore, for the interest of the poor especially that professional education should be rendered cheap and of easy attainment; that the lowest order of practitioners (which is the most numerous), and the students on their first entry into practice, may be found well instructed in the duties of their profession.

Such, on an attentive consideration of the evidence adduced, is the deliberate judgment of the committee on the matters submitted to them; and it now remains for the House to consider whether it will not be expedient to introduce, in the course of the ensuing session, some legislative measure, which may give effect to the recommendations contained in the present Report.

22d July, 1828.

## MONTHLY LIST OF MEDICAL BOOKS.

[Medical Works cannot be entered on this List except a copy be sent for the purpose; the titles of Books having frequently been transmitted to us, as published, which have not appeared for weeks, or even months, after.]

Medical Essays on Fever, Inflammation, Rheumatism, Disease of the Heart, &c. By JOSEPH BROWN, M.D. &c.

A Letter, addressed to his Excellency the Right Honourable General the Earl of Chatham, K.G. Governor of Gibraltar, &c. &c. relative to the Febrile Distempers of that Garrison. By W. W. FRASER, Esq.

Remarks on the Treatment of the Insane, and the Management of Lunatic Asylums; being the Substance of a Return from the Lincoln Lunatic Asylum to the Circular of His Majesty's Secretary of State; with a Plan. By E. P. CHARLESWORTH M.D.

A Manual of Modern Surgery, founded upon the Principles and Practice lately taught by SIR ASTLEY COOPER, Bart. F.R.S. and JOSEPH HENRY GREEN, F.R.S. Edited by THOMAS CASTLE, F.L.S. &c.

Elements of Descriptive and Practical Anatomy, for the use of Students. By JONES QUAIN, A.B. M.B. Member of the Royal College of Surgeons, and one of the Lecturers on Anatomy in the Medical School, Aldersgate-street.

## METEOROLOGICAL JOURNAL,

From August 20th, to September 20th, 1828.

By Messrs. HARRIS and Co. Mathematical Instrument Makers, 50, High Holborn.

August	Rain gauge.	Moon.	Thermom.			Barometer.		De Luc's Hygrom.		Winds.		Atmospheric Variations.		
			9 A.M.	M AX.	M IN.	9 A.M.	10 P.M.	9 A.M.	2 P.M.	9 A.M.	10 P.M.	9 a.m.	2 p.m.	10 p.m.
			9 A.M.	M AX.	M IN.	9 A.M.	10 P.M.	9 A.M.	2 P.M.	9 A.M.	10 P.M.	9 a.m.	2 p.m.	10 p.m.
20			66	70	60	30.00	29.88	49	49	WNW	W	Fine	Fine	Fine
21	.03		66	67	58	29.76	.66	49	49	W	NW	Fine	Rain	
22	.07		64	63	54	.62	.70	49	49	WNW	N	Fine	Rain	Rain
23			61	62	51	.88	.96	49	49	NW	N	Fine	Fine	Fine
24			61	66	63	30.07	30.08	49	49	NW	NW			
25			69	72	71	.14	.18	50	51	NW	NE			
26			74	73	55	.21	.20	51	51	E	SE			
27			72	71	59	.18	.14	50	50	SE	SE			
28			72	73	59	.11	.08	50	50	SE	SE			
29			68	72	60	.07	.05	50	50	SE	SE			
30			65	70	57	.06	.04	49	50	E	NE			
31			66	69	56	.01	29.89	49	50	ESE	ESE	Cloudy	Cloudy	Cloudy
Sept. 1		(	65	69	55	29.84	.84	50	50	ESE	ESE	Rain	Cloudy	Fine
2			66	67	56	.81	.92	50	50	SE	NE	Fine	Fine	Fine
3	.08		64	66	58	.84	.94	50	50	E	E	Rain	Rain	Fine
4			64	67	58	.93	.93	50	50	E	SE	Fine	Fine	Fine
5			66	68	58	.91	.91	51	51	SE	SE	Fine	Cloudy	Fine
6			64	67	58	.96	.90	51	51	SE	SE	Fine	Fine	Fine
7			63	65	54	.80	.81	50	51	SE	SSE			
8			66	74	53	.88	.70	50	49	S	SE			
9	.02	●	65	74	54	.74	.79	49	51	SW	WSW	Rain	Fine	
10	.24		66	68	58	.65	.45	52	50	SSE	WSW	Fine	Rain	Cloudy
11	.16		67	64	61	.45	.47	50	51	W	W	Cloudy	Show'ry	Fine
12	.46		62	65	58	.40	.38	52	55	WSW	W	Rain	Cloudy	Rain
13	.00		64	68	52	.46	.57	51	51	NW	NW	Fine	Fine	Show'ry
14	.22		54	58	50	.70	.90	51	50	NW	NE	Rain	Show'ry	Cloudy
15			53	60	46	30.17	30.32	50	49	E	ENE	Fine	Fine	Fine
16		)	53	59	42	.40	.38	43	47	NE	SE			Cloudy
17			54	62	53	.37	.08	47	48	SE	SE		Cloudy	Cloudy
18			57	64	45	29.93	29.91	48	48	SE	SE		Fine	Fine
19			50	67	48	.96	30.03	48	49	ESE	SE			

The quantity of Rain fallen in the month of August, was 2 inches and 80.100ths.

## NOTICES.

J. M. is informed that Medical Degrees are granted in the University of St. Andrews under certain regulations.

# THE LONDON Medical and Physical Journal.

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NO 357, VOL. LX.]

NOVEMBER, 1828.

[NO 29, *New Series*.]

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For many fortunate discoveries in medicine, and for the detection of numerous errors, the world is indebted to the rapid circulation of Monthly Journals; and there never existed any work, to which the Faculty, in Europe and America, were under deeper obligations, than to the *Medical and Physical Journal of London*, now forming a long, but an invaluable series.—RUSH.

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## ORIGINAL PAPERS,

AND

CASES OBTAINED FROM PUBLIC INSTITUTIONS AND OTHER  
AUTHENTIC SOURCES.

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### DR. BARON'S PATHOLOGICAL OPINIONS.

*To the Editors of the London Medical and Physical Journal.*

*Gloicester; October 3d, 1828.*

GENTLEMEN,—In your Number for August, you were kind enough to insert a communication from me. On the 7th of that month, I thought it my duty to transmit to the Editors of the *Edinburgh Medical and Surgical Journal* the paper marked (A), together with a short note, requesting that it might be inserted in their next Number. On the 26th of the same month, the paper was returned to me, together with the note marked (B.) To that note I replied in the letter marked (C.)

As your goodness in printing my first paper has in some degree made you parties to these transactions, and as the Editors of the *Edinburgh Journal* have declined to comply with my just request, by observing a total silence, concerning the matters put to them in my letter (C), it seems but fair to lay all the documents before you: and, if you agree with me, you will lay them before the public.

I remain, gentlemen,

Your obliged and faithful servant,

J. BARON.

(A.)

*Observations on Changes of Structure in Organised Bodies.*

By JOHN BARON, M.D. F.R.S. &amp;c. &amp;c.

I TRUST you will do me the favor to give a place to the following remarks in your next Journal. It appears to me that you have (unintentionally, I would hope,) given representations concerning some opinions of mine, which are certainly far from being correct. I have been too long engaged in the active and arduous practical duties of our profession to be very fond of hypothetical or conjectural reasonings; and I should think my time very much misspent were I to attempt to gain them any favor in the sight of my brethren. It is apparent, from Reviews of two of my works which have appeared in your Journal, that you do not consider me as having avoided errors of this kind. On the contrary, it is asserted that I have indulged in them in no common degree. It is my present purpose to point out to you some facts which have escaped your notice, and which may probably induce you to alter your opinion.

What I have now to say will apply chiefly to your Review of my "Delineations." Were I to remain silent, it might be supposed that I had assented to your representations, and the cause of useful knowledge might thereby be injured. If I understand the gist of your remarks, they lead to the following inferences: First, that none of my facts apply to pulmonary tubercles in man, and that I have taken for granted the thing to be proved;—secondly, that the whole of the doctrines which I have endeavoured to unfold, respecting the origin, progress, and character of a great variety of disorganizations, rest upon the same false foundation;—in short, that hypothesis, bare unsupported hypothesis, has been leading me astray for the greater part of my professional life. In corroboration of this representation, you affirm that I have nowhere stated that I have "traced the transformation from the vesicular or hydatiform condition to the opaque, firm, and tubercular structure in the tissue of the lungs; and it is only by applying to these organs what he (Dr. B.) recognises in the liver, that he ascribes to this source the formation of tubercles in the human lungs." (See vol. xxx. page 182.) You three times repeat this statement in the same article. As you cannot wish to maintain what does not accord with matter of fact, I am sure you will be glad to have an opportunity of correcting any inaccuracy into which you may have fallen. You will therefore do me the justice to attend to what follows.

From the very commencement of my inquiries, I have alluded to the difficulty of acquiring any thing like accurate knowledge of the primary or elementary condition of diseased structures in the human body; for this simple reason, that we seldom or never see them till all the original characters are lost. This is the cause that we have gained so little satisfactory information regarding the origin and course of morbid changes; that we are so little aware of the differences which exist between incipient and advanced disorganizations; and that we have hitherto been so unsuccessful in tracing the progress of alterations in structure. These convictions induced me to write as follows in page 21 of my "Illustrations:"—"When an individual affected with tubercles happens to be cut off by another disease, before the tuberculous affection has run its usual course, we may sometimes be presented in the same lung with examples of all the progressive changes which I have described. Such examples, of course, cannot often occur in the human subject. It has happened to me to meet with several of them, and I submit the following one to the reader's attentive consideration.

"A boy, about thirteen years of age, who had symptoms of pulmonary disease, was suddenly cut off by an affection of the head, and died on the 10th day of December, 1819. I examined the body on the following day. My principal attention was directed to the state of the thorax, and there I found most interesting illustrations of the description given above. There were accretions nearly of the whole of the right side of the chest, but they were not so firm by any means as they are in the more advanced stage of tuberculous disease. On examining the pleura, particularly towards its upper portion, it was studded with innumerable small bodies, many of them not so large as the head of a pin. They were perfectly transparent, and glistened on the surface of the membrane. On another portion of the pleura pulmonalis, I found a tubercle pendulous, as large as a pea, with thickened coats, and containing cheesy matter. This body is represented in plate 3d. *The transparent vesicles pervaded the substance of the lungs, as well as the membranes, but they did not all remain in this simple or elementary form. They exhibited every gradation in the progress which has been already described.* In their first state, neither lungs nor membrane, where they occurred, were much altered, but the condition of the surrounding lung became changed with that of the tubercles themselves. *Some had lost their transparency, and were of the size of millet-seed. Others were considerably larger, and were of a firm uniform consistence ;*

*others were less uniform both in colour and texture.* Some had discharged their contents, and the empty cysts appeared: others, which were consolidated, had nearly coalesced, and formed a dense yellowish structure, quite foreign to that of the original pulmonary tissue." This statement was illustrated by two plates, Nos. 2 and 3.

From facts such as are recorded above, my description of the origin and progress of pulmonary tubercle was derived. Besides this positive testimony drawn from them, I have brought forward collateral proofs from the inferior animals. The glandered horse affords an example of genuine tuberculous disease of the lungs. My examinations of that disease prove that the progress is such as I have described. I have given one plate representing the incipient state of the disorder in the horse; and another which portrays corresponding changes in the lungs of the sheep. The description was drawn up with great care, and is, I believe, perfectly accurate. How, with all these facts before you, you could have asserted that I have no where traced the progress of the pulmonary tubercle, and that it is only by applying what I have recognised in the liver to a corresponding change of structure in the lungs, is to me inconceivable. You seem to declare that I have been guided by vague and unfounded analogy, and have allowed fallacious appearances to delude me throughout. I trust it will be found that, on the contrary, I have exercised a cautious and scrupulous discretion on this very question. I have in no instance inferred the progress of disease in one organ merely from what may be seen in any other. I have not rested any doctrine on comparative pathology alone; but I have availed myself of both these sources of information to elucidate and explain what, without such aid, must have remained obscure and unintelligible. When, therefore, I affirm that tuberculous disorganizations were common to every texture of the body, and that what was true of one organ was, *mutatis mutandis*, equally so of others, I was not influenced by analogical reasoning, but by positive and direct evidence. I had often, for instance, found these disorganizations in the membranes, in the viscera, and in other parts of the same subject. Examples of the same kind, without number, may be drawn from the writings of professional men. In aid of these facts there was the evidence deducible from the examination of diseased structure in the inferior animals. From the whole I arrived at this conclusion, that, though the symptoms and course of tuberculous diseases are exceedingly modified by the parts wherein they occur, their origin is regulated by general laws

connected with the essential and fundamental properties of organised beings. The facts that support this opinion are clear, distinct, and to my mind conclusive. They embrace a great variety of the most interesting phenomena that pathology makes known to us. You have not given me any credit for fidelity in this matter, but would rather make it appear that *I* have arrived at conclusions without evidence, while it seems to me that *you* have neglected the facts I have adduced in the "Inquiry" and elsewhere, and have allowed preconceived notions to take place of solid observation.

What has just been said applies particularly to the objections which you have urged against my last publication. I have now to deliver a few remarks which have more direct reference to the general pathological doctrines at issue. I have urged them before, but unsuccessfully. Now I feel that they have still stronger claims to consideration.

I am very sorry that, with all my attempts to prevent misconception from the use of the word *hydatid*, I have not succeeded. I was fully aware of the evils that had arisen from mingling the zoological with the pathological question: and, although I did allude to the former in my first work, I took special care, then and on all subsequent occasions, to prevent error. It is, nevertheless, not unlikely that, in a subject which is admitted to be intricate and obscure, I may sometimes have failed.

My main object was, first, to ascertain the incipient or elementary state of various disorganizations; and then to trace their subsequent progress. As human pathology can only, in rare and uncertain instances, give us accurate intimation concerning these *principia morborum*; and as the *last* changes are exceedingly remote, in most of their characters, from the *first*, it was desirable to find out (if possible) some means of rendering this branch of knowledge more perfect and satisfactory than it ever can be whilst we trust to human dissection alone.

Fatal disorganizations in man seldom present to us an uniformity of appearance and texture. Some parts manifestly denote the greatest deviation from the natural state; while, on the other hand, we may detect portions where the departure from the healthy condition is very slight. This last point may be evinced in a still more striking manner when an individual is cut off by another disease soon after a disorganizing process has commenced. Another source of information is derived from witnessing the same disorganization in different stages, either in different parts of the same viscus or in different viscera of the same body. The result of obser-

variations of this kind goes to prove a connexion between things apparently dissimilar; to trace a progress where, at first sight, none could be detected; and to demonstrate that variations in appearance do not necessarily indicate difference of nature. All these points may be established by a reference to human pathology alone. That being done, we are in a condition to derive the greatest advantage from elucidating our imperfect information by facts and experiments drawn from the inferior animals. Analogies conducted in this cautious way will not mislead, and, if assiduously followed, are capable of imparting very valuable information. It has been my endeavour to keep these truths constantly in sight in the prosecution of my investigations. Till they are fully admitted by my professional brethren, I can scarcely hope that the facts which I have stated will gain the assent to which they are entitled.

I shall now add a few words to prove that, in the use which I have made of the term hydatid, I have neither acted inadvertently nor unadvisedly. SAUVAGES writes thus: "*Hydatides vero sunt PRINCIPIA QUORUNDAM MORBORUM INTERNORUM, sed hactenus signa desiderantur.*" MORGAGNI speaks of *hydatids degenerating into tubercles*, "as exemplified in the case of a virgin, in whom were various tubercles of different magnitudes, growing here and there to a sac in which a fluid had been contained, varying from the size of a large pea to that of the smallest hempseed, sometimes solitary, sometimes in clusters, but always scirrhous and hard; and, when cut asunder, discharging no fluid or gelatinous matter. Another instance which fell under his own immediate observation, as still more to the point, I give in his original words: "Et ne multis te detineam meæ me in albuginea et vaginali testiculorum tunicis persæpe habitæ observationes illuc adducunt ut credam hydatidum, sive tunicarum in quibus increscunt ipsæ, membrænas laminas earum humorem complectentes, postquam disruptæ hunc effuderunt, se suaque vascula in carunculæ formam primum contrahere; et nisi novus illac humor effluere pergat, indurari et exsiccari denique sic ut alba illa et dura subrotunda TUBERCULA representant alia aliis, ut HYDATIDES fuerant majora aut minora, &c. &c." (Vid. Epist. xxxviii. artic. 35.) What says BOERHAAVE on the same subject? "*Atque ita quidem harum nos rerum contemplatio ad hydatidas sensum speculatione hac deduxit. Qui sphærici tumores liquida primo lymphæ tangent, sensim degenerante, juxta varios in colore et crassitie mutata modos.*" (Vide H. Boerhaave Epist. Anat. ad Fred. Ruysch, p. 73.) Again, look at what DE HAEN



says in his *Ratio Medendi*, as well as in his Chapter de *Hydrope cystico et Hydatibus*, and you will find more than sufficient to justify me in the language that I have employed. I have referred to all these writers and in the "Inquiry" I quoted some of the passages at length. I then observed, that the origin of hydatids themselves was of less importance than the consideration of the vast "variety of formidable changes of structure to which they give birth." (See Inquiry, p. 111.) This observation was not written till after personal inspection had proved to me the accuracy of those distinguished authors whose names I have just mentioned. Were this a fit occasion, I could bring forward many additional proofs to corroborate what I have advanced. While relying on testimony of this kind, I little thought that it would be so much disregarded; and that it would be supposed that I was dealing in hypothetical and conjectural assertions, when I was in fact only elucidating the origin and cause of many disorganizations by clear and indisputable evidence. I then said, and I now repeat, that *that* evidence "illustrates the origin and progress of a great variety of the most fatal and alarming chronic diseases, which cannot be accounted for by any doctrines now in vogue, without involving the reasoner in the most palpable contradictions and inconsistencies." (See Inquiry, p. 117.)

I endeavoured, in a subsequent part of the same work, to give these facts a practical application, by pointing out the manner in which the actual appearances of different morbid growths are illustrated by a due consideration of the *principles* which I had before endeavoured to establish. These principles regard, first, the elementary condition of this genus of disorganization; secondly, the difference of appearance that may arise from the number, relative position, and progress of these elementary parts. Throughout the whole of this investigation, it was my object to state nothing that did not rest on unimpeachable evidence; and I have not yet discovered that the evidence is in any instance defective.

Divesting the subject of all the obscurity that might arise from the use of ambiguous terms, the sum of what I have said amounts to this,—that a great number of the most fatal disorganizations assume, at their commencement, definite and specific characters. The hydatid, as above explained, is unquestionably one of the most common of these forms. I am unable to conceive any chain of evidence more complete than that which bears upon this point. I would rest the proof, not upon any thing that I myself have seen, but upon the testimony of every accurate observer who has faithfully

recorded what he has witnessed in his own dissections. If my professional brethren would only free their minds from preconceived opinions, and look at the subject simply, I feel quite assured that it would soon gain their assent. But, however this may be, it is fair to state that almost all that has been advanced regarding the progress of certain disorganizations that wear a complete aspect is capable of the most rigorous demonstration, whatever doubt may be entertained as to their origin.

It may still further simplify this subject to view it in another light. Let us put aside all technical terms, and consider dispassionately the following questions: First, are there any indications by which the primary deviations from healthy texture may be detected? Secondly, have these indications been seen by persons competent to judge of the subject? Thirdly, has the progress from the primary indications to the more advanced stages of disorganization been traced with care and accuracy? And, finally, what is the class of disorganizations to which testimony of this kind applies?

It cannot be doubted that these questions can only be answered in one way by all who will take the trouble to acquire the necessary information. They embrace the *principles* for which I have been contending. I took my ground on the basis of facts recorded by SAUVAGES, MORGAGNI, BOERHAAVE, HALLER, DE HAEN, TURNER, and many other high authorities, my own observations fully according with theirs. The facts alone I endeavoured to apply in explanation of many of the most common and fatal disorganizations: and, till such facts are overthrown, I shall deem the ground on which the pathological subject stands unshaken.

(B.)

*Edinburgh; August 21st, 1828.*

The Editors of the Edinburgh Medical and Surgical Journal have received the communication of Dr. Baron. They are at all times anxious to give gentlemen opportunity of correcting any misstatements of facts, or misrepresentations of arguments, which they may conceive have been given in accounts of works: and with this view they took some pains to compare the account of Dr. Baron's work given in the July Number with the original, and with the observations sent. They regret extremely that they cannot agree with Dr. Baron in regarding the account given in that Number as misrepresentation; and if, in the statement there exhibited, they decline to adopt the views of Dr. Baron, this is totally

unconnected with any desire to misrepresent them, of which indeed they are entirely unconscious. For this reason, they cannot perceive that the insertion of the observations of Dr. Baron is either necessary or expedient.

Independent of this, however, they have made it an invariable rule, for reasons which must be obvious, never to insert papers which have already appeared in other Journals. As Dr. Baron must be aware that the paper sent to the Edinburgh Journal has appeared in the Medical and Physical for August, and therefore falls under this exception, he cannot, it is hoped, be offended that a rule which is absolute and imperative is not dispensed with in his case. The Editors of the Edinburgh Journal cannot conclude without assuring Dr. Baron that, though they cannot, in the present stage of the inquiry, adopt all his opinions regarding the formation of tubercles, they entertain a high admiration for the zeal and diligence with which he continues to cultivate the science of pathology.

*To Dr. Baron, Gloucester.*

(C.)

*To the Editors of the Edinburgh Medical and Surgical Journal.*

*Gloucester; August 28, 1828.*

Gentlemen,—I have received your note, together with the communication I forwarded to you for your next Journal. I confess I am somewhat surprised at your decision concerning that communication, and I feel myself constrained to address a few words to you on that subject. I have not said that you have wilfully misrepresented my statements. My words are, “that you have misapprehended my meaning, and (inadvertently, I would hope,) not accurately represented my sentiments.” These words occur in the Medical and Physical Journal for August. The expressions I have made use of to yourselves are of like import. I say, “It appears to me that you have (unintentionally, I would hope,) given representations concerning some opinions of mine which are certainly far from being correct.”

You tell me that you have compared the Review with my writings, and with the communication which I have sent, and that you can find nothing to justify such expressions: nothing to justify me in seeking to explain in your pages that which has been, I think, not accurately represented. Allow me to ask you, gentlemen, whether you are prepared to assert that the words which I have quoted from your Review of my “Delineations” are correct, and whether you are prepared

to sustain their accuracy? Is it your intention, by the answer which you have sent to me, to affirm that I have no cause for complaint, and that it is inexpedient and unnecessary that my explanation should be attended to? I trust to your sense of justice to answer these questions distinctly, because, unless you are disposed to go thus far, it does appear to me that the other reasons you have assigned for not inserting my paper cannot be maintained. I have laid before you a distinct grievance, for which I sought redress; and I cannot conceive that I ought to be refused what is so just and reasonable, even though I did take the opportunity of stating part of my grievance in another Journal. My having done so seems to me to afford you the only plausible ground for your decision: but even this, on consideration, I think, will not avail you.

I am told by you that the paper which I sent had been previously published, and that it is an invariable rule with you not to give admittance to such articles into your Journal. It is true that the facts which expose the inaccuracy of your statements have been published before; but this, as I have already said, ought not to make against me in seeking redress at your hands. Some of the sentiments, too, are also in the Medical and Physical Journal; but the whole article is so different in arrangement and in language, that the one cannot be taken for the other. I have moreover to affirm, that there are in the article which I sent to you many important statements and quotations which are not in the other: so many, indeed, as to entitle me to consider it as a new article altogether, and therefore not coming within the rules that you have laid down.

Believe me, gentlemen, it affords me no satisfaction to gain assent to opinions because they happen to be mine; and did I not consider that truth and useful knowledge were concerned, I should not deem it necessary to trouble you or myself on this subject.

I am, gentlemen, your obedient humble servant,

J. BARON.

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#### CEREBRO-SPINAL FLUID.

*Physiological Memoir on the Cerebro-Spinal Fluid.* By M. MAGENDIE. Read before the Royal Academy of Science, June 16, 1828; and condensed from the *Journal de Physiologie*.

SINCE the regard which the ancients entertained for the remains of the dead has given place to an ardent desire to become acquainted with the organization of animal bodies,

anatomical science has been carried to a high degree of perfection by the successive labours of eminent men. Anatomists, who still hope to find some part not observed before, some structure yet undescribed, are fain to proceed with their microscopes in hand. This circumstance alone is sufficient to shew the perfection at which the anatomy of the human body has arrived.

The investigations which I have long pursued with regard to the nervous system have led to my discovering a new element of our constitution: not one of those which requires minute research to be detected: on the contrary, the element of which I speak is so apparent, that it has only escaped heretofore from the belief that no part of the body, however minute, could have eluded the investigation of anatomists.

I have ascertained that there exists in the brain and spinal marrow a liquid, in the midst of which is immersed the brain, spinal marrow, and origins of all the nerves. This liquid, which belongs to the most perfect health, and the quantity of which amounts to several ounces, is too obvious not to have been noticed, and even mentioned, by several authors; but then its presence was attributed either to disease or to changes which had occurred after death. You may conceive my satisfaction on ascertaining so important a fact. A host of conjectures presented themselves to my mind: was this liquid the *animal spirits* of ancient writers?—the *nervous fluid* of which certain physiologists still speak? Doubtless, had the discovery been made fifty years ago, we should have had some hypothesis founded upon it. But such is not now the progress of science: experience is preferred to the most ingenious systems; and some observations on nature and some experiments are all that this memoir will contain.

It was necessary to begin by naming the liquid; for a name is a great matter, even in anatomy. I called it the *cephalo-spinal*, or *cephalo-rachidian*, because it is found both in the head and cavity of the spine. I next tried to determine the exact quantity of it; and I ascertained that, in an adult man of middle stature, and in the enjoyment of all his faculties, there were about three ounces; and in women, under similar circumstances, the quantity is greater: it will be seen by and by that this is no advantage. In old persons the quantity of the liquid is still more considerable, and may extend even to six or seven ounces; but then the faculties both of body and mind are generally much impaired.

The situation occupied by the fluid is worthy of remark. It forms round the brain and spinal marrow a layer which varies in thickness at different points: at the neck it is four

or five lines; at the loins it is more than an inch; in the brain generally one or two lines, but in certain structures and certain cases nearly an inch. Do not these facts militate strongly against a famous system, in which it is pretended to determine the most minute circumstances concerning the volume and conformation of the brain by the shape of the skull. If there exists, as cannot be doubted, a layer of fluid between the cranium and the brain, and if this layer may have several lines in thickness, how can we judge of the dimensions of the brain by those of the cranium? and how be sure that the elevations or depressions of the surface of the head correspond to those of the brain?

The study of the portion of the fluid which covers the brain led me to a singular and very unexpected fact with regard to the volume of this organ.

We look upon the dimensions of the brain as not subject to variation, because we think that it fills exactly the cavity of the cranium, and because we do not see the head become emaciated or increased in size with the other parts of the body: but nothing is less correct. I ascertained that the brain follows the other organs with regard to the change of its volume.

In all diseases of a certain duration, when the body wastes much, the brain undergoes a similar diminution, and the convalescent who can scarcely walk, and who attributes his weakness to the almost entire disappearance of the muscles of his limbs, might with as much reason attribute his moral weakness to the diminution in the size of the brain. I have ascertained, besides, that, in proportion as the wasted limbs regain their former dimensions, the brain also recovers that which it had lost. Thus it appears that one of the uses of the cephalo-spinal liquid is to replace the brain as often as it diminishes in actual volume. It fulfils the same office in instances of partial diminution, as I was able to determine in individuals who, during many years of their life, had had the arm or leg contracted and immovable. In this case a fifth or fourth part of one cerebral lobe had disappeared; a large depression was found on the surface of the organ, and this was occupied by the cerebro-spinal liquid, so that the cranium was always full.

After having made out the physical uses of the liquid, I wished to ascertain whether it exercised any influence on life. This could only be done by experiment on the lower animals, which have the cerebro-spinal liquid, though in much smaller proportion than man. My first trial was upon a fierce old fox, who was not at all anxious to contribute to the

advancement of science. By means of a little puncture made in the neck, he lost all the cerebro-spinal liquid in a few minutes. The effect was very striking: this animal, which had been ferocious but a moment before, became calm all at once; he no longer attempted to bite, and indeed scarcely moved. Seeing him in this disposition, I made him be set at liberty; but he lay down on the spot, and did not stir till next morning; he then attempted to get up, and in the course of the day made several steps with some confidence. At the end of thirty-six hours he again attempted to bite, and tried to escape. I then made a fresh puncture in his neck, and from the result I was satisfied that the cerebro-spinal liquid had been completely renewed again.

These inquiries led me to examine, with more attention than I had previously done, a disease of very young infants, in which a pouch filled with water exists at the lower part of the spine, at the place where the natural liquid is in large quantity; and I discovered that what we regard as a morbid product is nothing more than the natural liquid, which has distended its envelopes, and formed a hernia externally. When this bag happens to burst, the liquid escapes, and death speedily follows: probably because, the aperture remaining open, the fluid cannot again collect, and protect the brain and spinal marrow by its presence. Thus it appears that in man, as in the lower animals, the contact of this liquid with the surface of the brain is of great importance to the perfection of the nervous functions, and even to life.

But is it merely as a fluid that this is of so much use? or are the functions at all dependent upon its chemical constitution? To determine this question I made an experiment, in which, after having exhausted the cerebro-spinal liquid of an animal, I supplied its place with an equal quantity of distilled water at the same temperature; and I found, with surprise, that the animal became extremely agitated: its movements were perverted; it appeared to have entirely lost its usual instincts and habits. All these phenomena ceased when I allowed the water to escape. To judge if the temperature had an effect on the nervous functions, after having allowed the liquid which I had previously extracted from the animal to become cold, I reintroduced it into the cavity which it had occupied. Immediately the animal was seized with general trembling, analogous to what succeeds intermittent fevers. It is, therefore, not impossible that this experiment may throw some light on the cause of the cold stage in fever.

I conclude, from the facts and experiments which I have

detailed, and from many others already published, that the cephalo-spinal liquid influences the functions of the nervous system, first, by its contact with the surface of the brain and spinal marrow; secondly, by its chemical composition; and thirdly, by its temperature; and thus that this liquid must be ranked along with the blood, lymph, &c. from its utility in the animal economy.

But I had a much more important object than that which we have considered: I had to study the influence of this liquid upon the intellectual faculties of man. That I may be the better understood, it is necessary to say a few words on the formation of the brain. This is divided into two portions,—one large, and occupying the upper part of the cranium, viz. the *brain* proper; the other small, and placed beneath, viz. the *cerebellum*. The exterior of the brain presents a great number of rounded protuberances, varying in different individuals, and separated by furrows. Numerous cavities are formed in the centre of the cerebrum. It is there most probably that some of the mysteries of nervous actions and intellect are accomplished. Can it be believed that these cavities, rendered so important by the phenomena there produced, have been, and still are, denominated *ventricles*—little bellies! Is it not high time to discard this frivolous appellation from the language of anatomy? However this may be, the nomenclature of the parts contained within the cavities of the brain offer this remarkable circumstance, that many of them have names indicative of hydraulic uses: thus we have the *aqueduct*, the *funnel*, the *valve*, and even the *bridge*.

Most of these names have descended to us from distant periods, and we are accustomed to look upon them as the remains of some ancient system which has crumbled beneath the weight of time. The old physicians believed that the ventricles of the brain were filled with water, which in certain cases escaped by the nose; a belief which passed to the vulgar, among whom we still meet with it. These ideas are looked upon as erroneous by modern anatomists, according to whom the ventricles of the brain, in its healthy condition, do not contain any water, but an invisible vapour, which they have represented as the immaterial spirit presiding over the acts of intelligence. Nevertheless, when we open the brain, we almost always find the ventricles filled with a limpid fluid; but the present doctrine regards this as the product of the disease causing death.

Having acquired the data which I have already mentioned, I have been led to think that the water which is so frequently



found in the cerebral cavities might be the same which is found on the surface of the brain; from which it would follow that its presence in the ventricles was natural, as held by the ancients, and not a morbid product, as is at present supposed.

It will be perceived that, in order to confirm this idea, it was absolutely necessary that there should exist an opening by which a communication might be established between the exterior of the organ and its internal cavities; and yet no such opening was known. I did not, however, despair; and after some researches, made at the termination of various diseases, I at last found an aperture, two or three lines in diameter, completely hid by a lobe of the cerebellum, and forming a true *entrance to the cavities of the brain*.

This fact once established, it became mechanically necessary that the cerebro-spinal liquid should enter into the cavities of the brain, and fill them; for they communicate with each other. I had no difficulty in verifying this inference in the bodies of persons destroyed by accidents, and which, in fact, shewed me the liquid filling the cerebral cavities.

This discovery explained the hydraulic nomenclature of which I have spoken. I perceived that these pretended notions of ancient doctrines were simply the figurative but just designation of an assemblage of organs in full activity. In fact, the *valvula Vieusseni* of the cerebellum fulfils, to a certain extent, the office of a *valve*; the *aqueduct* has actually the functions which the name implies, as it transports the liquid from the fourth to the third ventricle; the *infundibulum*, or *funnel*, carries it to the pituitary gland; and, lastly, the pons, or *bridge*, is really an arcade placed transversely in the direction which the fluid observes: it is situated not over, but under, the current which it traverses; and, to give an idea of it, I cannot do better than call to mind the tunnel which is now in progress under the Thames!

This, then, is a complete explanation of the hydraulic apparatus presented by the brain. Without being an exclusive admirer of ancient times, I must remark that, in this instance at least, our predecessors had observed with more accuracy than we have done. Modern anatomists, however, have this merit, that they respected the names, although they regarded them as false; and in this they were wise, as people sometimes are, without suspecting it.

The liquid which fills this cavity is not in repose. On the contrary, it undergoes constant agitation, by the effect of a kind of flux and reflux resulting from respiration. Thus, at

the moment we inhale, the liquid flows out from the cerebral cavities, and passes into the spinal canal; while, on the other hand, at the moment we expire, the liquid re-enters those cavities, and flowing by the conduits above mentioned, particularly the *aqueduct*, which gives passage to the fluid, now in one direction, and now in the opposite.

The mechanical cause of this flux and reflux is very simple: it depends upon the alternating turgescence of the veins of the spine under the influence of respiration. This movement of the liquid is arrested, or much retarded, by compressing the abdomen. We may remark, that this is one of the effects of girdles, and serves to explain how their use becomes dangerous, or even insupportable, when the pressure is too great.

In studying the passage of the fluid by the aqueduct, I believe I have discovered the probable use of the pineal gland. I look upon it as a stopper destined to open and shut the aqueduct, over the anterior opening of which it is situated. Two large veins are placed and fixed upon the gland: these vary in size. Sometimes they swell greatly, and at others are nearly empty. It is inevitable, from the relative position of the parts, that the moment the veins swell they must press down the pineal gland, and this cannot yield nor descend without shutting the entrance of the aqueduct to a greater or less extent. Now, as one of the constant effects of exertions, anger, and all violent passions, is to swell the veins of the head, and particularly those which press upon the pineal gland, it follows that, in these different conditions, the entrance of the fluid into the ventricles is intercepted, or at all events impeded. The use, then, (or, more correctly, one of the uses,) of the pineal gland, would appear to be that of regulating mechanically the flow of the cerebro-spinal liquid through the aqueduct.

What influence has this fluid on the intellectual faculties? With a view of ascertaining this, I have endeavoured to determine the quantity in the brains of sane persons, of maniacs, and idiots. Idiots have a considerable quantity: it occupies the surface of the brain, and there forms a thick layer; it distends the cerebral cavities, and displaces all the parts found there, particularly the pineal gland, which, driven from its natural position, can no longer fulfil the functions which I attribute to it. The aqueduct likewise presents a considerable enlargement. In these cases we find six or seven ounces of the cerebro-spinal fluid; and it is the same in the fatuity of elderly persons.

Maniacs also have a large quantity of liquid, but it does

not accumulate at the surface of the brain : whatever be the nature of the insanity, the ventricles are always much distended.

The brains of persons gifted with reason up to the period of their death generally contain less than an ounce of fluid in the ventricles; so that it is easy in this way to distinguish the brain of a madman, a fool, or a sane person. It would appear that the development of the mental faculties is in the inverse ratio of the quantity of the cerebro-spinal liquid; and this, to a certain extent, is easily understood, as the volume of the fluid can only increase at the expense of the solid mass of the brain.

I may add, that it is not merely necessary that the liquid shall not be too abundant, but also that its movement be free. I lately found, in the brain of an old opera singer, who died idiotic at the Salpetriere, an obliteration of the opening by which the liquid enters the ventricles; and, as there was no other disorganization, I am inclined to think that this obliteration was the cause of the malady.

#### THYROID GLAND.

*Case of Disease of the Thyroid Gland.* By CONGREVE SELWYN, Member of the Royal College of Surgeons, London.

THOMAS STEPHENS, ætatis fourteen, farm-servant to Mr. Cummins, of Dymock, in the county of Gloucester, was admitted a patient of the Ledbury Dispensary, to which I am surgeon, for an enlargement of the right side of the thyroid gland, which had been of eight years' standing, and which very much interfered with respiration, particularly on exertion. My friend Mr. THOMAS BLIZARD happening to be at my house, I requested his opinion. On examination, it was found that the right side of the gland was converted into a thick cyst containing fluid, and it was agreed that I should puncture the swelling with a small trocar and canula; which I did in the presence of Mr. Blizzard, and drew off six ounces of fluid by measure.

The lad was desired to attend again in a week, as we anticipated the sac would refill; and we agreed, if it did, to evacuate it again, and pass a small seton across the cyst. The patient attended as he was desired, and I found the swelling had acquired nearly the same magnitude as at first, and, on re-evacuating its contents, nearly the same quantity of fluid had been secreted in the short space of a few days. I now passed the seton through the sac, and left it with a view to induce suppuration in it and its obliteration.

The boy wore the seton for several weeks, during which a copious suppuration was kept up; but at length, the matter lodging, and being in part absorbed into the system, and causing constitutional irritation, I laid the cavity open, (first withdrawing the seton,) with a director and bistoury, to the extent of an inch and a half; and, on passing my finger into the wound, I found the cyst partly ossified. The case went on very well, the cavity gradually filling up, and the whole cyst becoming completely obliterated.

The lad has continued perfectly well ever since, which is now a year and a half ago.

I have since treated three other cases of the same description in a similar way, and with equal success.

One of these, in particular, deserves notice, as the constitution of the boy was in a very bad state: he had been in the Gloucester Infirmary for disease of the lungs and tendency to dropsy; the swelling in the neck co-existing at the same time. Whether these symptoms were caused by or connected with the disease in the throat, I cannot take upon me to say: however, they yielded to the local and constitutional treatment pursued by me, and he is now a strong hearty young man.

*Ledbury, Herefordshire.*

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#### INFLAMMATION.

*On the Proximate Cause of Inflammation.* By Dr. Bow.

WITH regard to the proximate cause of inflammation, I may say I am a believer in the doctrine which acknowledges diminished action in the capillaries. The objections to it, which by some are thought to be insurmountable, appear to me easy of explanation, and which never could have arisen had the advocates of the doctrine been a little less exclusive. Mere diminished action in the capillaries cannot account for all the symptoms which characterise inflammation; besides, what is there in this hypothesis to account for the diminished action itself?

Diminished action of the capillaries can only be the result of previous over-excitement, by which their contractility is exhausted on the result of sudden abstraction of this power. We know it is not the consequence of the former, but in all likelihood it is of the latter.

You are aware I maintain that, if there be a determination of nervous influence to a part greater than natural, there will be a corresponding deficiency in its determination elsewhere. As soon as the remote cause of inflammation is

applied, there is a transmission of nervous influence in excess to the part: this cause acts upon the sentient nerves; consequently to their extremities is this excess of nervous influence transmitted. The office of sentient nerves is neither that of conveying contractility to muscular fibre, nor of that modification of nervous influence which effects secretion; so that, although there be a greater than natural determination of influence to the part, there is neither an increase in the action of the capillaries, nor in the products of secretion. On the contrary, there is diminished action and defective secretion; for almost all the influence of the part is directed through the channel of sentient nerves. As soon as the capillaries are thus robbed of nervous influence, in which consists their contractility, they can no longer resist the influx of blood; and those of them whose office it was to carry colourless fluid become now distended with blood: hence the increased redness and swelling. This distention, in its turn, becomes an additional source of irritation, and thus, from a mere puncture, will inflammation spread around.

If this view of the proximate cause of inflammation be correct, it is sufficiently simple; and, with similar notions of nervous action, may we not attempt to explain many phenomena which yet puzzle the physiologist. The blush of shame or of modesty is caused by a sudden determination of nervous influence to the extremities of the sentient nerves of the face: they become, if I may so express myself, positively excited at the expense of those nerves in their vicinity whose functions are contractility and secretion: thus the capillaries, from the loss of their contractility, are suddenly distended; hence the phenomenon. As the sensation which created the blush subsides, the balance in the distribution of nervous influence is restored, and with it the proper functions of the part are renewed.

At the age of puberty, those changes in the body which have been attributed to sympathy may likewise be accounted for. At this age, genitalia evolvuntur, mammæ efflorescunt; yet this change does not result from increased action in the vascular construction of the parts, but rather from diminished contractility, following an increased determination of nervous influence to the sentient nerves, caused by the perception of sensations before unknown.

Many of the phenomena attending pregnancy may be referred to a partial loss of contractility, owing to the demand of nervous influence created by the new action of the uterus. The mammæ swell in consequence, and they do not return to their former size after parturition, because the nervous influ-

ence which before was transmitted to the uterus is now directed to the secretory nerves of the breast. When lactation ceases, however, there is the balance in the distribution of nervous influence restored; the vascular construction of the mammæ regains its contractility, and they diminish in size.

A thousand other phenomena may be explained in like manner, especially those observed in erectile tissues.

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#### HEREDITARY HEMORRHAGE.

*Observations on Hereditary Hemorrhage.* By REYNELL COATES, M.D.

(Concluded from page 315.)

*Remarks.*—Whether the effects of pressure are similar in all cases of this strange idiosyncrasy, is a question that cannot be determined from the limited evidence which is at present within my reach; but it is evident that, among the relations of Mr. W., it is not only unavailing, but even productive of much inflammation, and in some instances of extensive ecchymosis. In the case just narrated, it will be perceived that pressure, in common with many of the styptics employed, exerted some control over the discharge upon its first application; while it eventually produced an exacerbation, by increasing the local irritation.

During the first few days the patient ate but little, and, as he was at the same time freely purged, his strength rapidly declined; but, after a generous course of diet was instituted, the disease became more manageable. It was curious to observe how regularly the hemorrhage intermitted after breakfast, which was his most considerable meal. This effect was probably owing to the concentration of blood about the stomach, during digestion, acting in the manner of a counter irritant. A plentiful supply of food appeared absolutely necessary to support the patient under the immense drain to which he was subjected; but the effect of the tonic and stimulant remedies, resorted to towards the close of the case, sufficiently prove that, however great the debility may be in such cases, no benefit is likely to result from any thing which tends materially to increase the activity of the general circulation.

The actual cautery, so generally successful in former injuries occurring in this family, failed entirely in the present case; and it is worthy of remark, that the temporary benefit resulting from it became less apparent in proportion to the severity with which the process was conducted.

The employment of cauterising irons is so exceedingly unpopular at the present day, that many surgeons have scarcely witnessed it: they are, therefore, generally ignorant of the fact that the application of the iron at a clear white heat is productive of little pain, and almost no inflammation; but that, when the temperature is less considerable, much pain and irritation are immediately produced, followed in many cases by severe inflammation.

An iron, small enough to enter the socket of a tooth, will inevitably lose much of its heat between the fire and the mouth. An additional portion will be dissipated by the moisture of the part before it can act upon the solids; while the steam resulting from the application, together with the radiant heat of the iron, must necessarily stimulate the neighbouring surface, in defiance of every precaution. The evident exacerbation of symptoms produced by the cautery in Mr. W.'s case resulted, no doubt, from all these causes combined, and should caution us against depending too much upon it in such affections.

The phenomenon which presented itself after the final application of the iron, (I allude to the escape of blood from the uninjured gum,) clearly demonstrated that a wound of any kind is not in all instances necessary to the production of this disease. One of the cases mentioned in the editorial notes upon the paper of Dr. HUMPHREY goes to establish the same fact, and appears to prove that some affinity exists between this complaint and purpura hemorrhagica.

The case is extracted from a communication by Dr. ELSSAESSER, published in HUFELAND's Journal for February 1824. The patient was constantly subject, from the time of dentition, to numerous subcutaneous extravasations of blood, forming maculæ, from the eighth of an inch to an inch in diameter, which disappeared in five or six days, after undergoing the usual changes of colour, giving place to fresh eruptions in other spots. This patient fell a victim, in childhood, to a hemorrhage caused by a slight wound on the head. His two brothers evinced the same strange idiosyncrasy.

It does not appear that any of the cases to which I have alluded have been attended with hemorrhage from considerable arteries: on the contrary, the blood seems to ooze from the capillaries alone. Among the descendants of Mrs. Smith, the discharge generally commenced several days after the injury, at a time when the wound was partially healed. In the sickle-cut which Mr. W. received, I have reason to believe, judging from his own description of the symptoms, that no unusual amount of arterial bleeding occurred; and, in Dr.

Elssaesser's case, death was occasioned by the accidental removal of a scab from a very slight cut, situated on the patient's head.

From these facts, it would appear that this peculiar flux, even when occasioned by a wound, has nothing in common with simple traumatic hemorrhage. It is, therefore, less surprising that the ingenious contrivance suggested by Dr. **PHYSICK** was not productive of the same benefit in this case which had resulted in those wherein he had previously employed it. The permanent extension of the cheeks, and the action of the air, stimulated the salivary glands, and increased the activity of the circulation in the neighbourhood of the injured part. The coagulation of the blood on its exit, by means of the spunk, was of no avail. Indeed, whenever the wound was left undisturbed for any considerable time, the whole surface would be found covered with a dense coagulum, but this did not lessen in any degree the rapidity of the discharge.

I would not, however, be understood to say, that the prevention of suction was unimportant in the case of Mr. W. On the contrary, I think it highly probable that the disease proved less obstinate in consequence of the slight separation of the incisors, which was kept up by the cork introduced between them. Over this the lips were closed; involuntary suction was prevented, and the salivary glands and fauces were not stimulated to undue action. But the successful termination of this formidable affection is, I think, mainly referrible to the timely adoption of an invigorating plan of treatment, and the free employment of the tincture of opium. Indeed, I am convinced that, had all stimulant and local treatment been omitted on the 27th of December, the case would have terminated more speedily.

Since the preceding pages were written, I have met with several other notices of hereditary hemorrhage, in which are contained facts interesting in themselves, and illustrative of the observations contained in the present communication.

An essay, by Dr. **JOHN HAY**, of Reading (Mass.) published in the N. E. Journal, vol. ii. p. 221, gives a very full account of this idiosyncrasy, as it occurred in Mr. Oliver Appleton, of Ipswich, and his male descendants, through many generations. One of this gentleman's relations married a Mrs. Smith, of Haverhill, supposed to be the lady alluded to in Dr. **OTTO**'s first paper on this subject.

As many of the sufferers were members of the medical profession, there is every reason to suppose that all the resources of the art were properly tested; but it does not appear that



any check was opposed to its fatal career until the trial of the sulphate of soda.

Cases are mentioned of bleeding from almost every species of slight injury; but the most important facts are as follows:

The predisposition does not display itself in every generation, but descends through the grandsons in the female line. "The bleeders" are all of a light complexion, apparently healthy, and of a choleric disposition. The hemorrhage seldom appears for several days after the wound, never flows *per saltum*, and is sometimes accompanied by considerable pain. A wound is not in all instances necessary to the discharge; for death has occurred from epistaxis and hæmoptisis; and, in one instance, two quarts of blood flowed from the integuments of the hand, after a slight bruise which did not abrade the skin. When ligatures have been applied above a wound to arrest the discharge, it has burst forth again, from above the ligature, attended with much pain.

Dr. HAY mentions that, during the discharge, the "bleeders" are very much troubled with costiveness and vomiting. He states that the sulphate of soda, given in the dose of an ounce, and repeated daily for several days, generally proves successful; but that, when employed "more frequently," it never fails: he mentions, however, but one case in which it was attended with advantage.

Drs. WILLIAM and SAMUEL BUEL have published, in the N. Y. Physico-Med. Journal, vol. i., an account of a similar family predisposition in the descendants of the Rev. Timothy Collins, the first pastor of the town of Litchfield, Conn. His son was the first who displayed it, and it afterwards affected some of the branches of the family in every generation, confining its attacks to the males. One of the fatal cases resulted from the extraction of a tooth. The hemorrhage never flowed *per saltum*, and the blood always coagulated freely. Those who were affected were of sallow complexion, and subject to plethora and spontaneous hemorrhage from the nose and mouth. No mechanical or styptic treatment was productive of any benefit. Pressure usually "distended the part above, rendering it livid and intolerably painful; nor could relief be obtained until the discharge was permitted to continue."

Dr. ELSSAESSER's papers\* contain several interesting cases; but it is unnecessary to present them to the reader, after what has been already narrated. Two of the individuals affected were sisters; and these, with one other, are the only

\* HUFELAND's Journal, February and September 1824.

exceptions that I have met with to the general rule that confines the disease to males. These females were subject to spontaneous hemorrhage in early life.

Dr. E. has also communicated a post-mortem examination of one of his cases. The body was found "bleached" in almost every part. The heart and large vessels discharged a thin and slightly reddish serum. There was a marked deficiency of secretion in the serous cavities. Many glands in the mesentery, and several in front of the lower part of the trachea, were enlarged. The cardiac half of the stomach was "uniformly pale red." The upper portions of the small intestine were pale, but, from the commencement of the ileum to the anus, the canal was reddened; the depth of tint increasing as it descended. This portion contained mucus, slightly coloured in the ileum, but mixed with florid blood in the rectum. The case commenced with hemorrhage from a slight wound, and terminated by discharges of blood from the rectum.

Professor NASSE, of Bonn, has published an elaborate paper on this subject.\* The original I have not seen, and the slight notice of it contained in the N. E. Journal furnishes no additional information.

I might refer to many other isolated cases of this disease, and also to a few more instances of family predisposition to it,† but it is time to close this paper, with a few practical remarks.

Hereditary hemorrhage is a disorder so rare, that very few have enjoyed the opportunity of witnessing a sufficient number of cases to warrant them in adopting general views of its pathology; and, unfortunately, the recorded facts are not so numerous as to supply the deficiency. It must be left for others, at some future time, to detail with accuracy the morbid appearances, and peculiarities of temperament, which characterise the "bleeders." Setting aside all speculation, I shall content myself with offering a few comments upon the preceding cases, and some practical conclusions deduced from their history.

All the evidence before us tends to shew that no great aberration from the customary state of health is necessary to produce this hemorrhage in the "bleeders." In many instances, no wound or obvious lesion of any part is necessary to the attack. The blood-vessels appear to be at all times ready to pour out their contents upon the slightest excite-

\* HORN'S Archives, May and June 1820.

† Vide Ed. Med. and Surg. Journal, vol. iv. p. 513; and N. E. Journal, vol. vi. p. 235.

ment. The family at Ipswich were robust and choleric, characteristics very consistent with an undue degree of plethora and activity of the circulation. The "bleeders" of Litchfield were sallow and less vigorous, but were constantly liable to attacks of plethora and local determinations of blood, which were generally relieved by epistaxis or other hemorrhages.

The state of the circulation in the case of Mr. W. is very peculiar. His cheeks are generally red, and the other parts of his face pale; but his colour constantly varies with the play of his feelings. His pulse ordinarily beats with an active stroke, and there are commonly about eighty-five pulsations in the minute. When he is engaged in earnest conversation, its rapidity is considerably increased; and I have known it to rise from eighty-two to ninety-five, from the exertion of walking across the floor.

In the worst forms of this idiosyncrasy, in Dr. Elssaesser's case, for example, irritations, too slight to be discovered, are sufficient to produce extravasation.\* Where this disposition is less marked, a local congestion, as in some of the Litchfield cases, or a bruise which does not abrade the skin, as in one of Dr. Hay's cases, may suffice; but more commonly a wound is required to call the disease into action.

It is obvious, however, that few of the "bleeders" would arrive at years of discretion in the midst of so many dangers, if they were at all times equally liable to hemorrhage. It will be remembered that Mr. W. once received a severe wound, which was productive of no serious consequences. It is, therefore, a matter of considerable importance to guard those who are subject to this disease against all causes of plethora; and, among these, suppression or diminution of the natural secretions is the most powerful.

Dr. Hay particularly mentions that his cases were affected with great costiveness and irritability of stomach, during the time of the discharge. Such a condition of the bowels could hardly fail to increase the liability to hemorrhage in persons so constituted, and also to render it more obstinate when it occurs, by closing the most important flood-gate of the circulatory apparatus, if I may be allowed to employ such a simile.

The condition of the hepatic secretion is also of the highest importance upon the same principle.

In the fall of the year 1824, I attended a woman who had laboured under jaundice for two years. She was attacked

\* See a case of bloody sweat in a young girl. By MESAPORITUS. Phil. Trans. Abr. vol. v.

by rheumatism, for the relief of which I performed acupuncture in front of the arm, over the middle of the radius. Blood flowed from the orifice formed by the needle, when not restrained by a compress, and continued to do so until the time of her death, which happened three days afterwards.

While the present paper was in preparation, Dr. CONDIE had the politeness to furnish me with some notes of a somewhat similar case, which occurred in his practice in 1827. The patient O'M. had been affected with jaundice for some time, and every part of his skin was of a deep yellow tint, inclining to green. He had been intemperate for some years. Dr. C. was called to see him on the 23d of June, and found him affected with much derangement of the stomach, costiveness, loss of appetite, and other symptoms of hepatic disease; all which, excepting the colour of the skin, subsided considerably by the 5th of August, under the usual treatment. On the 7th, he complained of burning and tickling of the gums, with a slight discharge of blood from them. The hemorrhage increased, and by the next morning became very considerable, although there was neither wound nor alteration of structure in the part. It yielded readily to a combination of opium, ipecacuanha, and acetate of lead. On the 9th, the discharge returned, and flowed from the mouth in a stream. It coagulated beneath the tongue, the coagula forming complete casts of that part of the mouth. When the gums were wiped with a sponge, the blood was seen to start up at every pore from the whole surface. The opium, ipecacuanha, and acetate of lead, were continued, and cold water was held constantly in the mouth; and, when the patient became extremely exhausted, wine and water were administered. By these means the hemorrhage was checked; but, a severe diarrhoea having supervened, death took place on the 10th. The examination of the body was not permitted.

*Deductions.*—Depletion seems to be imperiously demanded in the first onset of this disease, whenever there exist any marks of general plethora; but, with regard to the choice of the means, considerable caution is required.

Venesection is hardly admissible; for cases are not wanting in which the incision made by the lancet has formed a new centre for the hemorrhagic action.\*

Purgatives are decidedly proper, even in the last stages of the complaint, where there is any tendency to costiveness;

\* See the case already cited in Phil. Trans. vol. v.

for by such means we establish a natural flow of secretions, the suppression of which cannot fail to be injurious.

Calomel may be indicated where there is deficient or morbid action of the liver; but, in employing this article, we should be careful to recollect that ptyalism is very readily induced in patients who have lost a large amount of blood; and such an accident could not fail to induce unpleasant consequences in this disease.

Sulphate of soda, which is said to have had a specific effect in hereditary hemorrhage, certainly deserves especial attention, as the only successful remedial measure heretofore communicated to the public; but I should be more willing to place its effect in the Ipswich cases to the credit of its purgative properties, than to any peculiar power that it can possess.

Tonic remedies are indispensable at the close of the disease, when extreme exhaustion is induced by the discharge; but those only which appertain to the class of dietetics are unexceptionable.

Direct stimulants are altogether inadmissible.

Narcotics are strongly indicated, as exercising a powerful influence over irritation; and in those cases occasioned by a wound they are all important, in consequence of the inefficacy of local treatment: they should be administered liberally.

Local measures are generally unavailing, with only one exception.

Astringents are invariably followed by an ultimate increase of the flux, though they may lessen it for a short period.

Pressure is productive of irritation and inflammation without suppressing the discharge, which, when denied an outlet, will produce either an internal extravasation, or a new hemorrhage from some other part of the body.

Cold was thought to produce some benefit in Dr. Condie's case; but it was not applied alone, and the remedy was fully tested in the case of Mr. W., but without advantage.\*

The actual cautery has succeeded in many of the lighter cases; but it should never be persevered in after it has been once properly applied without advantage.

Potential cautery has been employed in one mild case only, and in this case it was unsuccessful. From what I have seen of its effects in traumatic hemorrhage from small vessels, I should be inclined to view it favorably.

These deductions are not offered to the public as established facts. The ground is in great degree new, and the amount

\* Ice was applied to the gums during one night, but unfortunately no note of the fact was preserved.

of experience small. My remarks are thrown out in the hope that some advantage may result from placing what is known more immediately before the profession, and from the proofs here given of the inefficacy of the usual plans of treatment. They must be subjected to the test of future observation.

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#### PHYSIOLOGY.

*A Metaphysico-Physiological Essay upon the Nature of the triple Alliance of Corporeal Organization, Animal Life, and the Life of the Understanding, as exemplified in the Constitution of the Human Species.* By WILLIAM JOHN THOMAS, M.R.C.S.L.

MAN is endued with volition, which is manifest from the voluntary movements performed by the body, in accordance with the several conceptions of the mind.

When death has ensued, none of the members of the body move by an impulse from within: voluntary motion has ceased.

Thought, imagination, reason, and the several passions, have also ceased; that is to say, they produce no effect upon the body: therefore, because there are no manifestations of them upon the corporate system, we conclude that they have ceased to associate therein.

Now, when we perceive a body influenced by voluntary motion, and obeying the impulses of the imagination at one time, and at another ceasing to be affected thereby, we are, of course, warranted in concluding that the thing which acted upon the living body is distinct from the body it acted upon. Because, if it were identified with that body, death, or a cessation of the manifestations of life, could not take place until a physical decomposition of the component particles of that body had ensued: in other words, until incorruption had put on corruption.

Nevertheless, the body, after the cessation of volition, not immediately corrupting, we are led to inquire into that singular phenomenon: the truth, therefore, appears to be, that there is a certain pervading principle, which gradually subsides after the separation of the faculty of volition; and this principle, which becomes weaker in proportion to the duration of time which has elapsed since the death of the body, may be called the life of the animal, in contradistinction to the faculties of reason, volition, and cogitation, which have been denominated "the life of the understanding."\*

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\* Mr. GUTHRIE, in the physiological department of his Surgical Lectures, states that Dr. Reynolds, vicar of Kensington, first pointed out this essential diversity.

We are therefore aware that animal life, which forms a medium of materiality, and which disposes the body to be acted upon, really subsists in that body, until separated by chemical decomposition; because, if we take a human body, upon which the mental powers have ceased to operate,—if we take such a body a few hours after death, and stimulate it by galvanism, the muscular fibres immediately contract, and we find the momentum of impression to be in equal ratio with corruptibility of that body; the corporeal susceptibility being greater immediately after than at a remote period from the escape of the rational faculty.

Now, although we can restore muscular motion, we can by no means restore the volition which previously controlled it; and this I apprehend to be another proof of a diversity between the two.

Having thus briefly referred to the three great principles which enter into the constitution of mankind, viz. the material; the pseudo-immaterial, or medium called animal life; and the immaterial, cogitative, or rational faculty, called the life of the understanding; it may be expedient to consider the several purposes for which they were respectively combined.\*

When it becomes necessary for an immaterial essentiality to be informed of the existence of a material universe, we may conjecture that such information might be immediate; but, since it hath pleased the omniscient Creator to confine an immaterial principle within a corporate material, what wisdom is there displayed in the construction thereof, with sentient organs, for the conveyance of impressions to the imprisoned mind!

If the organs of sensation were absent, what would be the condition of man? If the body were destitute of the organs of hearing, of sight, of taste, the tactatory implements, or olfactory organs, would life be a dream, a continued dream? The question is too complicated to be immediately resolved.†

\* It is necessary to state, that, although (to avoid circumlocution and confusion) we call the faculties of reason, judgment, volition, &c. the Life of the Understanding, yet we do not consider them as such, either individually or collectively, but merely as modes of manifestation, or proper functional operations of a principle, whose essence is incomprehensible by our finite capacities. We must not, then, confound the cause with the effect. The life of the understanding may be therefore defined, that abstract principle whose existence we recognise by the several actions and passions of the mind.

† The fœtus in utero may reasonably be presumed to be possessed of sensation; and, if possessed of sensation, why not of perception? and, if it be a percipient being, it assuredly may possess innate ideas: if, therefore, it were born with an abolition of all sensation, who will presume to affirm that it might not contemplate the ideas it had formerly imagined, now preserved in the memory? and, if that were the case, what mode of existence would it then

If the soul existed in the body under these conditions, it is evident that it could derive no information *ab externo*, and could by no means be cognisant of a material world, since it is separated by matter from the surrounding universe; for, if there were not sentient organs, how could the soul perceive? The body, therefore, appears to be furnished with organs of sensation for the express purpose of the soul's communication with the circumjacent world.

Moreover, that the immaterial cogitative principle might not be impeded by an immediate communication with the gross material of the body, it appears as if the life of the animal were superadded, to keep the combined functions in continual co-operation.

That the body exists but for the soul, will I trust be subsequently proved. To the mind belong all those delightful faculties, energies, and associations, which constitute the felicities of our present existence: perception, intellectual discrimination, rational decision, volition, and potential efficiency. That these are present during life, all are assured of; and, that after death they have ceased to associate in the body, none will deny.

If, therefore, these be the acknowledged faculties of the soul, exercised during life, and manifested through the mediation of the body;—if, after death, the body cease to indicate the existence of these faculties therein, and the cessation of vitality proclaim the separation of the soul from the body;—does it require an enthusiastic imagination to presume that those faculties are inseparable from the soul, and exist therein, notwithstanding the soul's separation from the body?

By no means. Enthusiasm must have no place in the calm contemplation of this sublime branch of metaphysical philosophy; for, as the secretions of the tears, the bile, the gastric and the pancreatic juices, are the proper functions of an animal body, so may the exercise of judgment, imagination, and reason, be the proper operations of the soul.

Thus we perceive that, after the death of the body, the life of the understanding may exist alone, and that, separated from the influence of the laws of matter, it ceases to be regulated thereby. Here may we indeed pause, to behold in prospect this scion of immortality. Unrestrained by the laws of gravity, the soul may ascend from earth in an instant, and perceive the universe of the creation.

enjoy? I do not here allude to the innate ideas which Mr. Locke has so logically argued against: they concerned the fundamental principles of moral truisms, which it had been presumed by some philosophers were implanted in the understanding of the foetal being.



Trace every star, and every gem,  
In night's imperial diadem.

Uninfluenced by the density of matter, how amply may her operations extend? Volition may will, and judgment shall direct those volitions. The soul has but *to will*, in the potential efficiency of its amplifying powers, that which no physical combinations, no material organization, can be permitted to withstand.

Perception may then become more percipient, reason more rational, and intelligence still more intellectual, until the magnificent schemes of the sublime Sovereign of the universe shall be fully reviewed in perception, and thoroughly understood. Amid the dark empires of materiality, in which, when conjoined to the body, this immaterial essentiality was compelled to reside, what could be more rapid than the perception manifested from within? If the eye were turned upon some brilliant ball, many millions of miles distant from this earth, how immediately was the same perceived! Can we then doubt that volition may be hereafter equally as easily executed as perception was instituted when the mind was imprisoned in the body? It is rational to presume that it may. At present, therefore, we may imagine a soul exclaiming to itself, "I will!" to perceive yon polar ball, and immediately the same is beheld. Hereafter, when the disjunction of the tri-entities has ensued, may not the same spirit of cogitation exclaim "I will!" to be seated on yon polar ball: "I will! my translation to the extremity of this celestial universe!" and immediately that volition of the mind, uninfluenced by the laws of matter, and with ten thousand times the rapidity of the transient lightning, shall be instantly executed.

These hypotheses cannot be considered either improbable or inconsistent, when it is remembered that the immateriality of the soul alone exempts it from the laws which regulate the material universe. It would be madness to will (in our present condition) our translation to a certain star at the extreme verge of creation, because during this life the soul and body are inseparably combined; and, since the soul is inseparable from the body, and the latter subject to the laws of gravity, so therefore the former is mediately affected thereby, and must necessarily be influenced through the mediation of the body by the same physical laws; and in this respect the volition of the soul, as contrary to the laws of gravity, cannot be executed.

I shall pass over the theories of life, which some of our

eminent physiologists have supplied us with: the object of the present paper is to propose, and not to refute opinions.

The subject which we are now treating upon is most important: Socrates, Plata, and Pythagoras, have illuminated it by the lights of their investigations and sapient opinions; and, more recently, the immortal Addison has considered it worthy of the most profound contemplation. Posterity has already applauded his valuable writings, and crowned him with garlands of unfading bloom.

But to return to our subject. It will be easy for us now to conclude, from the foregoing observations, that the soul and the body are distinctly different, in every and all possible degrees: the body influenced by laws which cannot operate upon the soul *per se*, but which partially exercise their influence upon it, through the medium of the body: the latter, after the soul's separation therefrom, becomes subject to destructive decomposition; and why not previously? Because, when this body was united with the soul, a portion of the latter's immaterial property of incorruptibility may be presumed to have pervaded the body, or to have influenced the susceptibility of the latter.

When we look back upon the opinions of the ancients, and more especially of the Greek philosophers, on these important philosophical problems, we perceive the hypotheses I have before adverted to faintly delineated. The dialogues of Plato, and more especially some parts of the writings of Pythagoras, I might properly refer to. This philosopher seems indeed to have entertained opinions respecting the diversity of animal life and the life of the understanding: the latter he most certainly denoted by the word soul; and the former, I apprehend, he alluded to in that which he calls the luminous body, or chariot of the soul. Yet, from the manner in which he delivers his sentiments upon these subjects, we are led to conclude that he considered them to be inseparably coexistent after their dislodgement from the body, and independent of all physical and material laws.\*

\* Pythagoras appears to have imbibed the tenets of the Egyptians upon some particular points, (whose country, following the example of Solon and others, he had previously visited.) The Chaldeans and Egyptians held nothing to be incorporeal, or insubstantial, but the *Eas Eantium*, who had existed *ab initio initii*. These philosophers imagined the soul to be a compound of understanding and soul: they gave the name of soul, and chariot of the soul, to the subtle body with which they conjectured the understanding was invested. Pythagoras did not acknowledge the second death of the soul, according to the Chaldean and Egyptian creeds: he maintained that there was only one death, and that that was the separation of the bi-entities of the soul,

The reasons have been before stated which induce us to maintain the diversity of animal life and the life of the understanding. The former may be considered as a medium of materiality between the immaterial essentiality of the one and the very gross materiality of the other. It may probably be disputed how any thing can be neither an immaterial essence nor a material substance, yet partake of both. The objection is certainly somewhat perplexing, but we shall endeavour to resolve it.

Throughout all nature there appear to be certain principles, which pervade even the most minute atom of the material world; for instance, electricity. Electricity may be called the animal life of the creation, that universe of innumerable worlds! and the soul of this shining association of stars, suns, and satellites, may be presumed to be the spirit of that divine Primordial which called the whole into existence. Little as we know of the operations of this supreme and adorable Being, (who is at once the centre and circumference of finite extension, and as boundless as the capacity of infinite expansion,) and still less of his vast designs, and the ultimate effects of the revolutions of sideréal worlds, this we are certainly aware of, that the proximate results of the movements of our own system have ever been productive of the utmost beneficence towards the creatures which inhabit this planet, and the more substantial works of the creation.

Considering these revolutions as the effects of infinite wisdom, perception, rational discrimination, and volition, continually operating thereon, can it be derogatory to that source of unlimited perfection to consider the whole universe as subservient to his will, even as the body of man is to the volition of his own mysterious soul?

In the human body certain movements are performed instinctively, some necessarily, others voluntarily; in the universe, faint analogies are perceptible thereto. Thus, gravitation, and the immutable physical laws of the material world, may be well accounted ordinances of the Creator, subject alone to mutability and variation from his particular volition. It is not, therefore, presumed that the ordinary

and a chariot of the soul, from the body; the soul and its chariot being translated, coexistent and inseparable, to their predestined star. The Egyptians maintained the doctrine of the metempsychosis, commonly called the transmigration of souls. The Babylonians, we may presume, held the same opinions, as the remarkable case of their king Nebachodonosor justifies us in supposing. But Plato, in his *Phædon*, informs us, through Socrates, that the souls of the righteous were immediately translated to the Supreme Being, and that the wicked alone were punished by a transmigration through the bodies of beasts.

operations of nature are particular instances of his immediate interposition; but the effects of general laws, which he has especially ordained.

Animal life, which we have already instanced as a medium of materiality, between the immaterial essentiality of the soul and the materiality of the body, appears indeed to result from an organic and physical decomposition of certain principles contained within organised materials; such compositions being concordant with certain physiological ordinances which regulate those organs. It is a remarkable fact, and well deserving of particular attention, that no living body can be renovated except from the decomposition of *an organised body similar to itself*.

Now, animal life, (which that immortal ornament of our profession, JOHN HUNTER, very properly compares with electricity,) seems to subside gradually from an organised body after death, no fresh supply being generated therein; and that which had been previously elaborated is rapidly extricated after the body has ceased to live, being completely separated by the chemical decomposition of the body it previously pervaded.

I inspected the dead body of an animal, a few seconds after it had ceased to move. Upon opening the thorax, the systole and diastole of the heart were very perceptible; and, although that organ was detached from its connexions, and placed upon the table, still the alternate actions were maintained, which, by repeated touches of the scalpel, were rendered manifest for some time. The fibres having become cold and rigid, the irritable principle appeared to subside, and the motion to cease.

Thus it appears that animal life was still active in that organ, notwithstanding the apparent death of the body; and when the stimulus of the steel had ceased to impress the irritable principle, the more potent galvanic applications would have rendered the organic motivity manifest again. The food of animals, in general, is either of animal or vegetable origin. Vegetables are organised, as well as animals; they live, they circulate the nutritious particles absorbed from the air and earth; propagate their species, and die. Instinct appears to direct them in the selection of their food. The vegetable kingdom being therefore endued with so many of the vital functions common to organised bodies, may be regarded merely as a modification of the animal kingdom, and as such pervaded by the same principles of vitality which constitute the animal life of beings of superior orders.

It appears to be this principle which preserves the fluidity

of the secretions in the living body. The blood may be said to possess vitality whilst circulating in its fluid state through the several sanguiferous organs; and to die, when, extra corpus, it coagulates. Does not the death or coagulation of the blood depend upon the extrication of the animal electricity, which previously pervaded it?

When either animal or vegetable matter begins to putrefy, it ceases to be proper food for man and animals. When, however, the food is received in its recent state into the stomach of animals, it loses the major part of the vital principle which had previously preserved it fresh and uncontaminated by putrefaction; the material parts being excreted, minus that proportion of the vital principle absorbed by the capillary orifices of the chyloferous absorbents, rapidly putrefies. We therefore observe that the vital principle is absorbed into the living body, and that the chyle is saturated therewith.\*

We can easily perceive the route of this vital fluid, through the mesenteric glands, the receptaculum chyli, the thoracic duct, the subclavian vein, the right auricle and ventricle of the heart, the pulmonary artery, the pulmonary veins, the left auricle and ventricle; from whence it is driven to the brain, or distributed to the rest of the body.

The brain may be emphatically denominated the reservoir of animal life; for there can be little doubt that this principle is secreted off from the chyle, (now mingled with the blood,) and prepared in the brain for distribution to the body through the medium of the nerves.

I may here remark how jealous nature appears to be in the admission of doubtful food into the stomach, and into the rest of the body.

If the food be minus the vital principle, (in other words, putrefied,) the most violent nausea and vomiting ensue, until the deleterious materials be ejected.

If, notwithstanding the vigilance of nature, the contaminated food pass the pylorus, she immediately relaxes that sphincter, and, by a spasmodic contraction of the gall-bladder, (a co-relative spasm of the stomach, of necessity, taking place,†) a quantity of bile is poured into the duodenum, which facilitates the escape of the pernicious ingredients.

If, notwithstanding all these exertions, a portion only of

\* The chyle may be observed to coagulate when taken out of the living body. Would continued streams of electricity delay the coagulations of the chyle and the blood, extra corpus?

† That acute observer of nature, Sir Anthony Carlisle, remarks that, whenever a spasm of the stomach takes place, a corresponding spasm of the gall-bladder ensues, and V.V.

the vitiated ingesta become agglutinated to the minute insertions of the chyliferous absorbents, seated upon those duplications of the mucous membrane of the intestines, called the *valvulæ conniventes*, what are the consequences? Nature (to use the words of Sir ANTHONY CARLISLE,) being aware that the vitiated chyle will be prejudicial to the system at large, fortifies the entrances by a salutary inflammation of the adjacent absorbents, thereby intercepting the inlet of the fluid. The *glandulæ primi generis* of the mesentery become swollen; and their calibres obstructed.

If severe vomiting and purging do not eject the morbid matter from the *primæ viæ*,—if nature fail, by obstructing the absorbents, to arrest all the morbid ingesta,—and a portion, only, becomes mingled with the circulation, a violent fever is the result! and, if the morbid materials be not expelled from the system by the salutary secretions and excretions, preternaturally excited, nature, being conscious that she can no longer withstand the united powers of functional derangements and corporeal disorganizations, severs that mysterious bond which binds the life of the understanding and animal life to the body: the latter dies; the life of the animal is extricated gradually from the body,—perhaps to revive some drooping flower of the desert, or, being wafted by a transient gale, it enters the grand chemical laboratory of the elements: there may it remain until nature, ever economical in the expenditure of material, employs it in her works again.

But the life of the understanding, the rational soul, now enters into life indeed! Having already delivered my own sentiments upon the nature of the future existence of the soul, I shall conclude this Essay by adducing those of philosophers (whose opinions have weight in themselves) upon the several subjects on which I have respectively treated.

PYTHAGORAS concludes his Golden Verses with the following sublime apostrophe to the soul: "Thou shalt leave the body, and mingle with the pure ether, and be immortal with the immortal gods, having abandoned mortality!"

Mr. LOCKE, in his Essay on the Human Understanding, considers that we have equally as clear ideas of immaterial as we have of material entities.

We have no idea of abstract substance, when the modes thereof are taken away; and we have no idea of the abstract essence of spirituality divested of the several operations of the mind.

\* Vide ΠΥΘΑΓΟΡΟΥ ΧΡΥΣΕ' ΕΠΗ, LL. 70, 71.

Yet we do not deny the existence of matter, because we cannot deny the abstract substance thereof, since extension,\* solidity, and magnitude, which characterise the presence of matter, are complex ideas, which we respectively imagine within us;" and are accustomed to imagine some *substratum* wherein they do subsist, and from which they do result, which therefore we call substance.†

This eminent philosopher opines "that we have not more or clearer primary ideas belonging to body, than we have belonging to immaterial spirit.‡

Again, "Every act of sensation, when duly considered, gives us an equal view of both parts of nature, the corporeal and spiritual; for whilst I know, by seeing or hearing, &c., that there is some corporeal being without me, the object of that sensation, I do more certainly know that there is some spiritual being within me that sees and hears. This I must be convinced cannot be the action of bare insensible matter; nor ever could be, without an immaterial thinking being."

The Cardinal GANGANELLI, most eminent among the literati of the last century, in a letter addressed to the Abbé GENOVESI,§ thus speaks of the progressive development of the intellectual faculties: "If the soul, like a budding flower, expands by insensible degrees, the reason is, that it depends upon a body sluggish in its progressions." Again,|| "Man quits the paths of reason when he attributes those astonishing operations to the inert mass of his body, and dares to attribute the honour of them to the acrimony of his bile, or the quick circulation of his blood: none but a spiritual being can produce immaterial ideas. The most subtle particles of air might be collected, might be agitated in every direction, but never be formed into a syllogism. Flame, radiant and penetrating as it is, has never yet given birth to a single thought or a single argument. That thought, which in an

\* These complex ideas may, by abstraction, be analysed into separate simple ideas: we cannot have an uncompounded idea of extension, because we must have the idea of substance extended; and substance cannot be extended without displacing space, equivalent to the bulk of the parts extended. Neither can a body be extended without form and magnitude, which comprehend all the mathematical varieties of configuration. Therefore, when extension is comprehended in contemplation, we necessarily have the ideas of extent, space, figure, colour, and a thousand other co-relative, complex, and simple ideas, connected therewith. We cannot form an idea of solidity without resistance; or resistance, without matter; or matter, without magnitude and form; and who can imagine the idea of magnitude, without finite extension, or infinite expansion?

† Locke on Human Understanding, chap. 23, § 1.

‡ Ibid. chap. 23, § 16.

§ Vide Letter cxxxvii.

|| Ibid.

instant makes the circuit of the world, which subjects the universe to its observation, which with the most rapid flight rises even to the Infinite Being,—which hath neither situation, figure, nor colour,—which imperiously commands, and forces the body to obey its orders. Tell me how it can be part of the same body?"

In concluding this Essay, I beg leave to observe, that the doctrine of the materiality and mortality of the soul should for ever be exploded as totally false, and unworthy of all regard,—as subverting the fundamental principles of all religions,—as introducing civil anarchy into the political economy of legislation,—as substituting discord for harmony, despair for hope, and eternal darkness for everlasting light.

Truth! how many dangerous and demoralising doctrines are promulgated in thy name!

*Liverpool; October 1828.*

#### DISEASES OF THE STOMACH.

*Upon a Disease of the Stomach, which produces a well-defined Perforation in its Tunics, without Softening of their surrounding Structure.* By Dr. C. H. EBERMAIER.

(Concluded from page 308.)

CASE VII. (related by M. TRINNIUS.)—A man, apparently in good health, was suddenly attacked, after exposure to cold and rain, with a violent pain in the region of the stomach. His suffering gradually diminished, but he remained subject to frequent attacks of spasm in the stomach. His complaints, however, continued so trifling for the space of a year, that he did not, until the expiration of that time, seek for medical assistance. At this period he was robust in appearance, and, with the exception of slight spasmodic affections of the stomach, which did not, however, cause any local tenderness or increase of sensibility, he enjoyed good health. The digestive functions were undisturbed. He was quickly relieved by the use of the oxyde of bismuth. In the course of a few months, the cardialgic affection returned with increased severity. Any irregularity in diet obviously added to the sufferings of the patient. Antispasmodics produced no good effect. He had occasional intervals of ease, during which the stomach was not disturbed by food, and he was able to take moderate exercise.

About a fortnight after his relapse, he rode out one morning in a carriage, and ate heartily of salt meat. On returning home, he was seized with the most violent pains, with great agitation, and difficulty of breathing. The surface of the belly appeared to be drawn towards the spine; the face and extremities were pale and cold. Great pain in the abdomen; tenesmus. For the first time he vomited a quantity of tenacious mucus. He complained of a



sense of fulness in the lower part of the belly : it was not, however, tense or hard. The pulsations at the wrist were too rapid to be numbered. The faculties were undisturbed. The slightest motion gave rise to the sensation of some heavy body rolling about in the abdomen. In a few hours he died.

*Dissection.*—A considerable quantity of chocolate-coloured fluid escaped from the abdomen. The stomach was pale and shrunk, and near the pylorus there was found an aperture of a circular form, about an inch in diameter. A more accurate examination detected several points of preternatural adhesion with the surrounding parts. In other respects, the stomach and the other viscera were perfectly healthy.

CASE VIII.—A man, twenty years old, who had been subject to dyspeptic attacks after eating, was attacked suddenly with very violent spasmodic pain in the stomach. He threw himself upon a sofa, his body bent with suffering, and uttering dreadful cries upon the least motion. The pulse was not to be felt. At the end of a few hours he died, in perfect possession of his faculties.

*Dissection.*—A good deal of air escaped from the abdomen. In the cavity was found a mixture of solid and liquid food, that had escaped from the stomach. The stomach was shrunk, and upon its anterior surface, near the lesser curvature, about two inches from the pylorus, was found an opening with smooth edges, which appeared as if it had been made with a punch. It was rather oval than round, nine lines in length, and six in diameter. Nearly opposite this aperture, on the posterior part of the stomach, there was a small round spot of mortification, which appeared on the point of giving way. There was no appearance of recent inflammation, or determination of blood. All the other viscera were healthy.

CASE IX.—This case was communicated to Dr. E. by M. THÆVISSÉN. It is particularly interesting, inasmuch as it proves that a similar kind of disorganization may take place in other organs, the structure of which admits of the formation of perforations, with fatal extravasation of their contents.—An unmarried woman, thirty-three years of age, whose health had never been disturbed by any serious illness, suddenly complained of very severe pain in the lower part of the belly. No cause could be assigned for the attack. She imagined it was possible that her attack might be dependent upon suppression of the menses, which had existed for four months. The lower belly was highly sensible to the slightest pressure. Thirst excessive. Extremities covered with sweat, and cold as marble. Countenance anxious, and with a yellowish tinge. Pulse small and quick. Abdominal inflammation was suspected, and a severe antiphlogistic treatment was instituted without any benefit. The pains increased in severity. Frequent vomitings of a dark brown substance. The patient gradually sunk, and died the night after she was attacked. She

had had no motion, nor passed any urine, during her short but severe illness.

*Dissection.*—A considerable quantity of fluid escaped from the abdomen, of an urinous smell. There was no trace of gangrene nor of inflammation. All the viscera were healthy. The uterus contained a four-months' fœtus. On the posterior side of the bladder, about the middle of its longitudinal diameter, a circular perforation was found, about two lines in diameter. The edges of this opening were neither gangrenous, inflamed, nor hard; they were as smooth as if a portion had been removed by a punch. In every other part the bladder was perfectly healthy.

After having cited these very interesting examples, Dr. E. takes a brief view of the opinions which other physicians have entertained upon the subject, and concludes by stating his own sentiments.

GERARD conceives that the perforations of the stomach cannot be attributed, in general, to any acrid matter. If such were the fact, the organ would be corroded to a greater extent. These apertures are usually found in patients apparently in good health, or who at least are not suffering under any malady alarming in itself. He imagines that death takes place in consequence of rupture of the stomach from gangrene, ulceration, or abscess; and he suggests that a small abscess may be slowly developed in the tunics of the stomach, which may entirely destroy the coats. A case related by LIEUTAUD renders this probable. He found pus between the membranes of the stomach, in the body of a woman who had long suffered from cardialgia.

CHAUSSIER derives all the perforations from scirrhus affections, or from suppuration. He rejects the spontaneous digestion of the stomach admitted by HUNTER, and also the action of worms. He supposes that the apertures arise from a morbid process of ulceration, which may be either acute or chronic. Although there is, in the first instance, no chemical alteration in the humors, still the cause depends upon a particular irritation of the solids, in consequence of which the humors acquire a dissolvent property, as is proved by the lint placed upon ulcers being frequently perforated or dissolved. It is impossible to characterise this morbid process by its external signs or by its essence, because it takes place in the tissue of the organs, in the extremities of the lymphatic, vascular, and nervous systems. It is, in fact, known only by its results. It is the opposite of the process of nutrition, which is as completely hidden from our observation. When it attacks a part, its blood-vessels are gradually multiplied, and appear injected. An ichorous fluid is discharged, which attacks the

tissue, and destroys every part it touches. The spots and perforations of the stomach are different degrees of one and the same malady. Sometimes the destructive process is suddenly established, in the space of a few hours, and in healthy subjects. It more frequently occurs after some days' illness.

HENKE is of opinion that these spontaneous perforations of the stomach are identical with the disease known in Germany by the name of *gelatiform softening* of that viscus, and which is observed principally in children, and that it is preceded by inflammation of the stomach, of a more or less acute nature.

DESGRANGES maintains that, in the case he saw, the violent contractions of the stomach, always acting upon a single point, produced a mechanical lesion of the part.

According to RAUCH, perforations of the stomach occur in four different forms: 1. Ulcers with their edges, which are callous, or inflamed or sphacelated, and that then the tunics of the viscus are gradually destroyed. 2. Destruction of a perfectly healthy tissue, with irregular and fringed edges, more or less inflamed: such perforations arising from the action of gas, efforts at vomiting, &c. 3. Round holes with smooth edges, without suppuration, gangrene, inflammation, softening, or thickening. Also a gradual thinning, with local absorption of the coats. 4. Gelatiniform softening.

Various other opinions are glanced at, but they do not refer to those round perforations of the stomach, the edges of which are smooth and not thinned.

Dr. E. is of opinion that the cases he has related prove the existence of some common morbid cause, which could produce so striking an uniformity in the appearances seen upon dissection. He observes—1. That in every case the disease was extremely slow, being gradually developed in the course of several years. 2. In no instance was the nature of the malady suspected by the physicians. The symptoms were so obscure in some instances, that an affection of the stomach was never thought of. The derangements of the digestive functions were considered to be sympathetic. The fatal termination of the disease was never anticipated. Death sometimes occurred unexpectedly, almost in the midst of apparent health. 3. The disease continued uninterruptedly, without any perfect intervals, as is frequently the case in true nervous cardialgia, although occasionally in so slight a degree that the patient considered himself in health. Severe pain did not usually occur until the last days of the patient's existence, and not always even at that time. The previous pains

were slight, limited to a dull sensation of pressure in the precordial region, and to slight spasms. 4. Cachexy never followed this long train of symptoms. Although vomiting frequently occurred, the strength of the patient did not appear diminished, nor did his external appearance indicate the existence of disease. Emaciation occurred only in the case related by Rauch, and that was an example of a complicated malady. In every other no hectic fever was observed, and death was neither the result of exhaustion of the vital powers nor want of nutrition: it was sudden, and caused by the extravasation of the contents of the stomach, without which the patient might have continued to live. 5. The perforations were always found in the pyloric region, or near it. 6. The most attentive examination could not in any case detect the least vestige of inflammation or suppuration of the other parts of the stomach. The tunics of that organ were perfectly healthy, except in the spot perforated, and rather pale than red. 7. The appearance of the perforation was always the same. Approaching a perfectly round form, and almost always of considerable extent, it penetrated uniformly all the coats of the stomach, so that the portion removed appeared to have been taken away in a very regular manner. The surrounding parts were never softened, nor the edges thinned. There was generally perceived around the opening a tumefied induration, but not tuberculous nor cartilaginous. It was regular, and lost insensibly in the healthy parts.

Dr. E. considers the cases he has related particularly interesting, and calculated to throw some light upon the true nature of these perforations, on account of the adventitious and thickened tissue which surrounded the apertures. It follows that the rupture could not have arisen from the thinness or local weakness of the part, but that it depended upon a regular and uniform process, continuing without interruption from the commencement of the disease.

It may then be concluded, that these regular perforations of the stomach are never the accidental or mechanical result of spasm. That the disease does not consist in scirrhus or cancer of the stomach. That it is not the termination of an ordinary chronic inflammation. Lastly, that it does not result from "ramollissement" of the parietes of the stomach.

## HOSPITAL REPORTS,

*(Principally condensed from various Periodical Publications.)*

## UTERINE AFFECTIONS.

*Case of Prolapsus of the Uterus.*

JULY 31st.—A young woman, aged eighteen, six months before her admission into ST. THOMAS'S HOSPITAL, exerted herself in lifting another person out of a coach, in consequence of which prolapsus of the uterus took place, together with considerable hemorrhage. She fainted immediately, and was carried home; but in the course of a month was so much better as to be married. Since then she has had constant pain and tenderness over the region of the uterus; pain and extreme soreness at the umbilicus; and frequent vomiting. The uterus has made its appearance externally two or three times since the first occurrence of the procidentia, but has been replaced by a medical practitioner, who has also made use of some treatment to diminish the more urgent symptoms.

On making an examination, Dr. ELLIOTSON discovered that the uterus was still in the vagina, forming a small tumor, the neck of which was tightly girt by the os uteri. She had pain and tenderness in the situations above described, with a tongue white at each side, and red in the centre and tip, and a quick and sharp pulse.

Dr. Elliotson thought that the uterus was in a state of inflammation, and that the gastric symptoms arose merely from the sympathy of the stomach with the former organ.

The patient had, a short time before her admission, suffered from inflammation of the throat, followed by ulceration.

*Hirudines xx. abdomini, hodie et cras.—Slops.*

August 4th.—The pain and tenderness, which had disappeared, having returned, and the stomach being again irritable, twenty leeches were applied.

5th.—Great pain and tenderness of lower part of abdomen. Pulse 120, and hard; pain at the pit of the stomach; vomiting.

Dr. ROOFS saw the patient this day, Dr. E. having left town.

He ordered V.S. ad 3xxj.—Ol. Ricini 3ss. statim.—Hyd. Subm. gr. ij. Opii gr. ½; Antim. Tart. gr. ½, in pil. sextis horis.

6th.—The bleeding removed all pain and tenderness of abdomen.

7th.—No pain. Stomach still irritable. In a few days all inflammatory symptoms had disappeared. The prolapsus continuing, an astringent injection was prescribed, and a pessary ordered to be worn. These partially relieved the displacement, and in a few days she left the hospital.

*Polypus of the Uterus.*

JULY 31st.—A woman, aged forty-seven, in whom the menses had long stopped, began to feel severe pain at the lower part of the abdomen. A week after, when she was coughing, a small tumor came through the external orifice of the vagina, with a quantity of blood. This was three months before her admission into St. THOMAS'S HOSPITAL. Since then she has been subject to violent shooting pains of hips, loins, and back; nausea; a discharge of fetid yellow matter, and occasional flooding.

On examination, a polypus was found attached to the mouth and neck of the uterus. It was of the size of a small apple, and attached by a narrow base.

To remove it, Mr. TYRRELL put a needle, armed with a strong ligature, through the neck of the tumor, which he firmly tied with the same ligature: he then removed the greater part of the polypus with a bistoury, leaving that portion on which the ligature was still attached. Little blood was lost at the time; but so much hemorrhage occurred a few hours after, that the patient nearly sunk. It was at length checked by pressure and oleum terebinthinæ.

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*Chronic Inflammation of the Neck of the Uterus.*

THE extirpation of the neck of the uterus has become latterly so common, that doubts have in consequence arisen as to its necessity in some of the cases in which it has been performed; and the anatomical examination of the parts so removed has shewn these doubts to be well founded. The following case will give additional strength to the reasonings which have been founded upon the resources of nature and art which some practitioners appear to be ignorant of, and which may prevent them from performing operations that have too often caused the death of the unhappy sufferers.

There was lately in LA CHARITE a young woman, who had been ill about four years and a half. At that time, being in the fifth month of her pregnancy, she received a blow upon the abdomen, which in a few hours produced a miscarriage. Great affliction having made her indifferent to life, she took no care of herself, neglecting even the common precautions. The menses returned, but with great pain, and were very irregular; at the same time she experienced dull pains in the hypogastrium, loins, and groins, with an abundant discharge from the vagina, pain in the stomach, and continual headache. This condition lasted about a year; but, being obliged to work for her living, her occupation (that of washing) caused a continual pressure upon the abdomen, which augmented her disease, so that the pain at length became insupportable; and she was admitted into La Charité, under the care of M. FOUQUIER.

The above symptoms rendered the seat of the malady evident enough, and an organic lesion of the neck of the uterus was supposed to be the cause; but the nature of the affection was disputed. In the mean while, numerous leeches were applied to the pudenda, and even to the neck of the uterus itself. By these means she was speedily relieved; but the enlargement of the part was undiminished, as was also the acrid discharge from the vagina.

M. Roux was consulted. After an attentive examination, the disease was considered cancerous, an operation proposed, and eagerly accepted. Each day M. Roux examined the patient very attentively, and each day, notwithstanding the intreaties of the woman, he postponed the operation. At length it was decided upon. The patient was placed upon the table, and every thing was prepared, when the surgeon, who had actually laid hold of the neck of the uterus, and had the bistoury in his hand, again sent the patient to her bed. A severe peritonitis followed the attempts that had been made: the repeated application of leeches succeeded in subduing this disease, and in a few weeks the symptoms disappeared. The original disease was then again thought of, and was treated with antiphlogistics and emollients. By degrees the swelling of the neck of the uterus disappeared, the menses returned, the discharge ceased, and the patient was able to quit the hospital, (where she had been upwards of ten months,) regarding herself as cured. A year elapsed without her experiencing any return of the disease: she was able to pursue a tolerably active employment the whole of that time; and, in fact, excepting some occasional attacks of indigestion, her health was very good.

About the month of November last, having suffered a severe disappointment, she was suddenly seized with the same symptoms she had before experienced; but, until January, she sought for no relief. On the 30th of that month she was received into the hospital. Her sufferings were at their height: the pudenda were irritated by a yellowish discharge, which ulcerated the neighbouring parts; the neck of the uterus formed a flattened tumor, red, very sensible, and covered with inequalities of a scirrhus hardness, and presenting in front an ulceration of an irregular form, about the size of a thirty-sous piece. The abdomen was swollen in the hypogastric region, but without pain in that part. Leeches, warm baths, semicupic fomentations, and soothing measures of all kinds, were made use of. A marked amendment was the consequence: the neck of the uterus became progressively softer, losing its increased size and sensibility. These changes followed the use of fomentations injected by the vagina. The belly, nevertheless, continued swollen, and the patient proved to be with child; in consequence of which she left the hospital.

This premature departure is to be lamented, because, although far advanced, the cure was not complete. It is, nevertheless,

quite certain that this woman had not a cancerous affection of the neck of the uterus, and that, if she had fallen into other hands than those of M. Roux, she would have undergone an untimely, perhaps a fatal, operation.

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*Rupture of the Uterus at the Time of Quickening.*

Mrs. —, æt. twenty, lost her life under the following circumstances: She had been married about fifteen months, and, until the time of her conception, had enjoyed tolerable health; but since that period had suffered considerably from deep-seated pain in the back and uterine region, together with other symptoms threatening abortion.

Before her marriage, and up to the time of conception, she had experienced an unusual degree of pain at each menstrual period; and the catamenial discharge was exceedingly scanty. Her death appeared in some measure accelerated by an excursion to Greenwich, in company with her husband, as shortly after her arrival there she was attacked with vomiting and syncope, and in less than an hour she ceased to exist.

Upon examination, it was discovered that a rent of about five inches in length had taken place in the uterus, extending itself from the cervix upwards at its anterior part, and rupturing a portion of the placenta. The fœtus lay in front of the uterus, enveloped by its internal membrane, and surrounded by coagulated blood, a quantity of which was also found between the intestines and in the cavity of the pelvis. The uterus itself was covered with dark-coloured spots, and easily lacerable. The ovaries were also in a state of disease: the one containing hydatids, the other with the same dark-coloured spots as the uterus. The fœtus appeared healthy, and is supposed by its movements to have caused the rupture of the uterus.

The above case is related by Mr. ELSE, in the Medical Gazette.

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EXTIRPATION OF THE UTERUS.

IN May 1827, Mr. JOHN M. BANNER, surgeon to the NORTH DISPENSARY, Liverpool, was first called to Mrs. J. on account of retention of urine. The same symptom recurring, he examined the os uteri, and found it painful, thickened, hard, and irregular. On inquiry, it appeared that she had suffered occasional shooting pains from the pubes to the sacrum, for near two years; that these had then become more frequent, accompanied with pain across the loins, sense of weight within the pelvis, and bearing down. The catamenia were irregular. Mrs. J. was forty-four years old, had enjoyed good health till within the last four years, was married at the age of twenty-one, and had two children. In a few years her husband died, and since then she had led an irregular life. She stated that her father died of a cancerous disease of the breast;



that it was extirpated twice, and subsequently once from the axilla; that at length he died, after suffering severely for several years.

The removal of the neck of the uterus was proposed at this time, but not assented to.

In July 1828, Mr. B. was again requested to visit her. Various remedies had been used under the care of a physician, with no permanent benefit. Frequent hemorrhages, to a greater or less extent, had taken place; the pains were increased; and a quantity of bloody offensive matter had passed some weeks previously per vaginam.

On examination, he found ulceration to a small extent on one side of the os uteri, and the general health was evidently impaired. She determined to undergo the operation; which, however, Mr. B. thought would be unjustifiable, as no boundary to the disease could be perceived by the most careful examination, the hardness of the neck appearing to extend to the body of the uterus, as far as could be felt. In this state she continued until the beginning of August, when, in consequence of the case which had occurred to Dr. BLUNDELL, it was resolved to operate.

The patient being placed on her back, as for the operation of lithotomy, but without tying the hands or feet, Weiss's speculum vaginæ was introduced, and held by an assistant; a strong hook was passed into the anterior part of the cervix, and the uterus drawn down, with little difficulty or pain, to about half an inch from the os externum. A strong aneurism needle, with a handle, having its extremity pointed, and armed with a double ligature, was then passed through the neck of the uterus, the hook withdrawn, and the ligature held by an assistant, whilst the speculum was also removed, and the labia held out of the way by those on each side. A semicircular incision was then made on the inferior part of the cervix, through the vagina and peritoneum, and widened with a hernia knife from one broad ligament to the other. Afterwards a similar incision was made at the superior part, and extended as before, so that the broad ligaments and fallopian tubes only remained to be divided: to accomplish this, the index finger of the left hand was passed through the upper opening, and the middle through the lower, including the right broad ligament between them: an incision was then made with a scalpel between the fingers and uterus, close to its body. The nearest part of the included portion was thus divided, and was attended with slight hemorrhage. Some time was lost in endeavouring to secure the bleeding vessel, which however proved unsuccessful. The hemorrhage not being very profuse, the operation proceeded; but, finding the former plan tedious and difficult, the fundus was brought down by passing two fingers through the upper opening, and then the strong hook between the hand and uterus, the point of which was easily pressed into the fundus, and thus the object was quickly accomplished. The fallopian tubes and remaining part of the broad ligaments were now distinctly seen, and, by

passing the fingers beneath them, were divided with the common scalpel, close to the uterus. This was by far the most painful part of the whole.

During the operation, (which lasted twenty-five minutes,) the patient was troubled with retching. About six ounces of blood were lost. The intestines did not protrude, nor interfere with any part of the process. Immediately after, the patient was as well as could be expected, and she was put into bed. In the course of twenty minutes or half an hour, she vomited severely, and became very faint; a coagulum of about eight ounces was expelled. Vinegar and water were applied to the abdomen and upper part of the thighs: she then rallied, and after some time complained of pain at the lower part of the abdomen; and, the vomiting recurring, another coagulum, rather larger than the first, came away. She was now in a state of syncope; the retching remained severe, and almost incessant. One hundred drops of tincture of opium were given, but immediately rejected. Small quantities of brandy were administered; the cold cloths continued; and the patient kept in the horizontal position. The hemorrhage did not return after the expulsion of the second coagulum, and the pain in the abdomen subsided. She again rallied a little; and in the evening, as the vomiting continued extremely distressing, two grains of opium were given. The patient was relieved for two hours; the symptoms then returned, and four grains were given, which gave relief for the same length of time as the first dose.

September 3d.—Passed a very restless night. Countenance pale and dejected; pulse ninety-six, and weak; skin moist, and of a natural temperature; slight pain in the abdomen and back; vomiting less frequent. Has not passed any urine since the operation, nor had any evacuation from the rectum. The catheter was introduced, and ten ounces of high-coloured urine withdrawn.

Vespere.—Bowels purged freely by injections, and small doses of the sulphate of magnesia in infusion of roses. Vomiting and pain relieved.

4th.—General appearance as yesterday; pain in abdomen slightly increased on pressure; little or no tension; pulse ninety-four, rather fuller; vomiting much the same; tongue slightly furred; complains of great thirst; bowels freely open. At noon, the pulse had risen to 108, and twenty-four leeches were applied to the abdomen. Passed urine twice.

Vespere.—Pain little abated; pulse remains quick, and rather hard. V.S. to syncope. Twelve ounces were taken away.

She lived till the 6th, the symptoms gradually increasing till six A.M., when she died.

*The appearance of the uterus.*—The uterus was much larger than in the healthy state; several tubercles of various sizes were loosely attached to the body and fundus: they were round and very hard. The cervix and body were considerably thicker and harder than natural. Ulceration had taken place on the os uteri,

particularly at the lower lip: a section exhibited the common appearance of scirrhus; a circumscribed hardness was very perceptible, extending from the cervix to the body on the left side. Several small, round, hard tumors were imbedded in the substance of the fundus.

*Examination*, five hours after death.—No tension of the abdomen. On examining the cavity, the omentum and intestines were found highly inflamed, and adherent to each other by an effusion of lymph. Several folds of small intestine filled the pelvis, and were more inflamed and adherent than those above. The lowest convolutions were firmly adhering to the cut surfaces made in the operation and to each other, so as completely to close the aperture from within; and only a small quantity of serum was effused. The bladder remained in situ.

The peritoneum lining the pelvis had in general a greenish and somewhat dull appearance, which by some present was thought to be of a gangrenous character; but its texture was perfectly firm and unyielding. The ovaria were retained in their usual position by the remainder of the round and broad ligaments. The fimbriated extremity of the left fallopian tube was found closed and distended with serum nearly to the size of a hen's egg, and gradually narrowing along an inch of the tube to a point, where it was again closed. The ovaria were as usual in persons who had borne children, being flattened and corrugated, as if covered with cicatrices. The duplicatures of peritoneum forming the broad ligaments were more separated below than above, where they inclose the ovaria, and were thus kept in union. A very careful examination was made to discover, if possible, the source of the hemorrhage; the arteries were probably retracted, as none divided could be found; but the mouths of several considerable veins were seen distinctly on the right side, where the layers of the broad ligament were separated, and traced to the plexus at the side of the pelvis. The branches of the internal iliac on this side, and the spermatic arteries, were examined, but no irregularity as to size or distribution was discovered.

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#### HERNIA.

##### *Strangulated Scrotal Hernia. Removal of a Portion of Omentum.*

JAMES ALDIS, æt. sixty-eight, was admitted into the MIDDLESEX HOSPITAL on the 2d of August, labouring under strangulated scrotal hernia on the right side. He had had a rupture for many years, and had habitually worn a truss. Early in the morning of this day the rupture had come down in unusual volume, and had produced pain in the abdomen. The tumor was hard and tense. The usual remedies were tried; a large injection was given; the patient was placed in the warm bath, and bled so as to produce faintness; and, while he was in this state, continued attempts were made, which lasted nearly an hour, to reduce the hernia by the

taxis. The tumor, however, did not yield to these attempts; nor was it rendered less tense, but it became more painful. Under these circumstances it was thought right not to delay the performance of the operation.

The contents of the sac were found to be a portion of the colon, and a quantity of indurated omentum. The intestine was speedily returned; but the mass of condensed and thickened omentum did not admit of being reduced. Mr. MAYO, therefore, cut it off close upon the ring, and (having tied as many as ten arteries, each with a single thread,) returned what remained into the abdomen.

This patient for several days was in great danger, with a dry tongue, and a pulse varying from 120 to 140 in a minute, attended with delirium. There was pain and tenderness of the abdomen during the first two days after the operation: the latter symptom now, and on its recurrence four days afterwards, was removed by means of leeches and fomentations. After the operation, when the bowels had been freely opened, the patient continued, for several days, to take a grain of calomel, and two of pulvis antimonialis, every eight hours. Under this treatment he gradually recovered.

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*Strangulated Inguinal Hernia. Intestine opened.*

JOHN QUICK, æt. forty-two, was admitted into the MIDDLESEX HOSPITAL, October 2d, with strangulated inguinal hernia in the right side. The rupture was congenital. He had constantly worn a truss for many years, and when it happened that the hernia came down he had found no difficulty in replacing it. On the present occasion, his bowels had been confined for several days, and the rupture had come down the preceding evening, while he was engaged in no unusual bodily exertion. He was bled during the night of the 1st of October, and ineffectual efforts were made to reduce the hernia.

When Mr. MAYO saw this patient, soon after his admission into the hospital on the morning of the 2d, the tumor was tense, and tender on pressure; there was tenderness of the abdomen, nausea, (he had vomited once or twice,) a sense of dragging from the epigastrium, hiccup, an anxious countenance, and an irregular pulse. A large injection was given, which speedily operated. The patient was placed in a warm bath, and attempts were cautiously made to reduce the hernia; but the patient complained of so much pain that they were discontinued, and the operation was performed.

The sac was found to contain about a foot of small intestine, which was dark, highly inflamed, and pretty firmly adherent to the neck of the sac, and here and there so discoloured as to shew that gangrene was commencing.

The adhesion of the intestine to the neck of the sac being broken through with the finger, the stricture divided, and the intestine

opened, the aperture was made fast to the divided integuments by a ligature, and the rest of the bowel returned into the belly. After the operation, the pulse became regular, the bowels acted freely through the wound as well as by the rectum, and the pain and tenderness of the belly diminished. The latter symptoms were found in some degree increased the following day, when he was bled, and since then his progress towards recovery has been uniform.

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#### INJURY OF THE HEAD.

*Fracture of the Cranium. Abscesses discovered in the Liver and in the Lungs.*

JAMES PARKER, a robust young man, was admitted into ST GEORGE'S HOSPITAL on the 2d of September. From the persons who brought him the following particulars were learnt: Whilst drunk in a pothouse on the 31st of August, he was beat with a stick about the body and head. He was taken home insensible, and bled to sixteen ounces in the course of the day, which produced no relief. From the time of the accident to that of his admission, he never regained the least sensibility.

He lay in an insensible, or rather semi-comatose condition, with a pulse slow and full; the pupils dilated; the surface neither blanched nor very cold; the breathing not stertorous, but deep drawn and heavy. Though not very restless when left to himself, he resisted all attempts to examine his condition with dogged and pertinacious violence: he answered no questions, and seemed to comprehend none. Two inches, or more, above and behind the right ear was a pretty clean wound, confined to the scalp, and not having denuded the bone or pericranium. No fracture or depression was detected; the eye of that side was black with ecchymosis.

V.S. ad 3viij.

He continued very restless through the night of the 2d, so much so indeed as to require the strait waistcoat. The bandage likewise slipped from the arm in the night, and occasioned the loss of eight ounces more blood.

On the morning of the 3d, there was little alteration from what had been observed on the preceding day. The treatment consisted in salines, with the sulphate of magnesia. He passed a bad night, endeavouring to get out of bed, &c.; and, between nine and ten A.M. of the 4th, was seized with convulsions. At one P.M. he had another fit. It began with a quivering of the lips, heaving of the chest, and convulsive affection of the muscles of the throat, and those which are engaged in the act of respiration: after a very short time, the breathing recommenced by snuffling through the nose, and gradually extended to the whole of the respiratory apparatus. The pupils before the attack were contracted, but afterwards dilated. The head was in the first instance drawn to

the right, but subsequently fixed by the action of both the sternomastoidei. The portio dura of the right side was paralysed during the attack, the mouth being drawn to the left. The extremities, and especially the lower ones, were little affected. He had been bled to the extent of  $\text{℥xij}$ . this morning.

It being evident, from the character of the symptoms, as well as their duration, that there existed something more than simple concussion, Mr. KEATE, at two P.M., enlarged the wound, separated the pericranium, which was firmly attached to the bone, and discovered a fracture immediately anterior to the sutura lambdoidalis, unattended with perceptible depression. The trephine was "set on;" and the removal of the circular portion of bone disclosed a solid cushion of coagulum beneath. Two more pieces of bone were taken away by the trephine, and the margin of the clot, which was small, was apparently arrived at, though the fracture appeared to stretch downwards, perhaps to the basis. The first and the second pieces of bone that were removed shewed no bleeding whatever from the diploë; whilst the third, which was partly anterior to the coagulum, bled freely, and scarlet-coloured blood seemed to issue from the surface of the dura mater. The symptoms were not relieved; but no further indications remaining for trephining, the edges of the scalp, which had been crucially divided, were united by a suture in the form of a cross.

On the 7th, he had some return of sensibility, putting out his tongue when desired and motioned to do so, though perfectly unconscious of what was around him. He was not at all delirious, the breathing was easy, the pupils dilated, the surface of a natural warmth. Salines to be continued.

On the morning of the 8th, the sensibility was still more decided; and the symptoms altogether had a favorable cast. In the afternoon he was suddenly seized with a rigor, during which he was bled; and early on the 9th had another, which lasted very nearly an hour. At two P.M. he was quiet, and seemingly free from much pain. The pulse was more rapid than it had been for days, and, though not decidedly strong, was thrilling and jerky; tongue moist and white; surface hot; stools, as they had been all along, passed in bed. The sensibility was still on the increase, but the expression of the face was bewildered and anxious. The blood drawn last night much cupped and buffed; some which was taken this morning not so much so.

Bleeding to be repeated in small quantities, its frequency being determined by the state of the blood and the pulse.

11th.—The pulse is quick and full, surface hot, pupils dilated, and he complains of pain in the head, incessant and intense.

V.S. ad  $\text{℥v}$ . vel  $\text{vi}$ .

Vesp.—Felt relieved by the bleeding, but the pulse is still frequent and hard. Blood much inflamed.

Rep V.S. ad  $\text{℥xij}$ .—Rep Mist.

On the 12th, the pain of head was a little relieved, but the con-

junctivæ and surface were assuming a yellow tinge. This bilious tint of skin was more marked on the 13th, and the symptoms were assuming the character of prostration and collapse. On the 14th, the surface was uniformly yellow, the mouth and teeth encrusted, the emaciation extreme. The sensibility was decidedly decreased, and, though evidently dying, he said he was "better." He died in the course of the 15th.

*Sectio cadaveris.*—The corpse was exceedingly emaciated, although on his admission the frame was robust and athletic.

Much extravasation was found beneath the scalp, particularly in the occipital region. On raising the skullcap, the dura mater was found to be perfectly sound at the part where the trephine had been applied. In the direction of the spine and transverse ridge of the occipital bone, where the fracture (as will be presently shown) had extended, a thin layer of blood was effused on the membrane, which was greatly inflamed, indeed actually sloughy. Opposite this inflamed portion of the dura mater, the tunica arachnoides was also inflamed, and covered with coagulable lymph. There was some, but not very much, fluid in the ventricles; no extravasation in, or rupture of, the brain; little or no effusion of blood at the basis.

The fracture extended from the spot where it first was discovered round the occipital bone, across the left branch of the lambdoid suture, obliquely over the petrous part of the left temporal bone, between the sella turcica and cuneiform process of the occipital bone; then over the right petrous portion, to the place from which we started, completing the circle, and literally breaking off the back of the head. Numerous and large depositions of lymph and pus existed in the liver, the texture of the viscus around being perceptibly engorged and inflamed. Similar appearances were discovered in the right lung; none in the left. The spleen and other viscera were healthy. The urine was bilious.

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#### HYDATIDS OF THE LIVER.

WATERY and serous, as well as bilious, sanguineous, or purulent collections of the liver, were until lately looked upon as very obscure diseases, which frequently remain unknown until death. M. RECAMIER has cleared up the diagnosis in a very great degree. He forms so accurate a judgment of these affections, that strangers, astonished at his success, have attributed it to a species of *medical instinct*, which at first teaches him the nature of the disease. The following case will give an idea of the nature of the cysts of the liver, and the mode of operating practised by M. Recamier in order to effect their cure.

— Marcon, thirty-eight years of age, followed a sedentary employment in one of the lowest quarters of Paris. When inter-

rogated as to his former state of health and other circumstances, he said that he had twice suffered from tertian fever, and about five years ago had a severe attack of illness, the nature of which he was ignorant of. For about two years he had experienced an abdominal affection, that gave him great uneasiness. At that period he remarked a small tumor about the epigastric region: it disappeared, however, according to his account, and only again became visible about three weeks before his admission into the HOTEL DIEU, which was on the 21st June.

The epigastrium began to swell about the end of May, but without pain: in fact, the formation of these cysts is seldom accompanied by any previous inflammation, and this is the case with regard to many other affections of the liver, and accounts for the frequent errors of diagnosis that are committed. Marcon perceived the tumefaction to augment considerably during the eight days previous to his admission into the hospital, and then lancinating pains in this region were first felt. On the 17th June he began to vomit every kind of food, generally a few minutes after swallowing it.

On the 20th June, the tumor was found to be very painful to the touch; but the patient had no fever, and, what is of importance in the diagnosis, he declared that he had not experienced any feverish attack from the commencement of the disease.—We must here remark, that the tertian which the patient had been affected with a long time before, appeared to have no connexion with the present malady.

On the 21st, the tumor had become still larger, and the pains extended to the navel. Twelve leeches were applied, and the patient was put into a warm bath. From the 23d to the 26th, the symptoms became more serious; the sleep was interrupted, and violent pains were felt throughout the whole extent of the tumor. Twelve more leeches were applied, warm baths employed, and two ounces of castor-oil given to overcome the constipation.

On the 27th, the patient was better. The tumor occupied the whole epigastrium, and it was easy to trace its boundaries inferiorly. M. Recamier declared the nature of the tumor, and, after having employed percussion several times, proposed to make a puncture.

M. Recamier calls his exploratory puncture a true acupuncture, on account of the smallness of the instrument which he employs. The fluid which issues forth shews him the precise nature of the affection; and, upon seeing the liquor that escaped in this case, he confirmed the diagnosis he had already given. A piece of potash was applied, according to the method of the Professor, in order to determine the adhesive inflammation. The day following, an oval-shaped eschar was produced, the largest diameter of which was from above downwards. Barley water was prescribed for the patient's drink, and on the 29th another piece of potash was applied.



On the 1st of July, two ounces of castor-oil were required, to remove constipation, and a third application of the caustic was made. The pain in the cyst augmented, and fever came on. The eschar had not fallen out on the 7th, but the neighbouring inflammation having developed itself properly, a tolerably deep incision was made in the whole line with the bistoury. This gave vent to about half a pint of serosity slightly turbid. The day after, about a pint escaped. The patient, however, continued to suffer great pain, and complained of general uneasiness.

In all such cavities, M. Recamier considers it as highly important to prevent the introduction of air. It is the same in the synovial cavities and in the pleura, after the operation for empyema: if the air gains access, the discharge puts on a bad character, hectic fever becomes lighted up, and the patient perishes.

A sufficient quantity of Eau de Guimauve was therefore injected into the cavity, to fill it. The patient from this period found himself much better: the fever entirely ceased, and the abdomen became less tender upon pressure. Emollient drinks, baths, and cataplasms, were the only remedies employed.

On the 12th, the tumor was dispersed; and on the following day the amendment was still more evident.

On the 5th of August, the belly was still a little painful, and appeared larger than natural, and its sensibility was yet considerable in the epigastric region. A fresh puncture was made, and immediately a fluid of the most fetid odour escaped: hydatids were voided with the fluid which was contained in the cyst. The day following, the patient found himself much better, and some little time afterwards his spirits began to revive. Every day the dressing was performed with great nicety; the artificial opening was preserved by means of sponge lint, and the quantity of fluid injected became much smaller. The parietes of the cyst were discharged in fragments with the fluid, which afterwards was strongly tinged with yellow.

The state of the patient is now satisfactory: the appetite begins to revive, he lies upon the side and sleeps all night, and the capacity of the cyst diminishes every day.

## CRITICAL ANALYSES.

Que laudanda forent, et quæ culpanda, vicissim  
 illa, prius, cretâ; mox hæc, carbone, notemus.—PENNIE.

*A Treatise on Gout, Apoplexy, Paralysis, and Disorders of the Nervous System.* By A. RENNIE, Surgeon, &c.—8vo. pp. 213. Burgess and Hill, London, 1828.

ALTHOUGH gout has been a constant subject of study and investigation ever since the days of HIPPOCRATES, and early attracted observation and research, by evincing singular hostility to the great and the learned; yet, in spite of every barrier which medical talent and industry have ever been able to suggest and raise in opposition to its prevailing ravages, it has hitherto, with its single but hydra ally, civilization, scorned the control of physic, and extended its tyranny from the mansion to the hovel,—from the inactive limbs of the scholar, to those of the laborious and unlettered mechanic; till it has at length achieved a monopoly, and deprived its martyrs of the petty consolation of being connected, in sufferings at least, with men of rank and genius.

We therefore contemplate with pleasure every new endeavour which is made to erase this formidable disease from the list of our *opprobria*, and rescue mankind from its severe and prevailing oppression.

Mr. RENNIE is not only amongst the few who institute their inquiries into the arcana of gout upon sound practical principles—the examination of facts, but he carries his views back to the earliest dawn of its existence, and endeavours to distinguish and point out its characteristic features in the embriotic and imperfect state of its peculiar diathesis. And he justly remarks, that

“Due distinctions have not been made and preserved betwixt what may be termed the gouty diathesis, disposition, or tendency, and the actual disorder of the fit. Whereas, these states of constitution are essentially different, and ought to be marked by a broad line of demarcation. The causes which produce the gouty disposition are generally very distinct from those which excite the fit. The symptoms indicating the mere disposition to gout are also very different from those which occur when the disease is developed. The methods of curing the two states of disorder are still more widely different, and sometimes directly opposite. An invalid may possess all the peculiarities of the gouty disposition, from habitual exposure to the disposing causes of the disease, and yet for months or years entirely escape any actual fit. Those who are subject frequently to attacks enjoy intervals of freedom, in

which no decidedly gouty symptom is felt: still they possess the diathesis, and ~~that sometimes so strongly~~ that the slightest exciting cause will induce the fit. He who possesses the gouty disposition merely, and is anxious to get cured of it, must pursue a very different course from him who actually labours under a fit, and wishes to be cured of that: he must not only prevent the fit, to which he might be liable, by avoiding the exciting causes; but he must farther adopt means calculated to restore that morbid peculiarity of constitution which renders him subject to the specific disorder called gout. This he can hope to accomplish only by avoiding all the disposing causes of the disease;—by counter-acting their effects where they are unavoidable,—and by restoring the constitution when it has already suffered from their operation. I believe it will be found that it is from want of due attention to these important distinctions that so many different views have been entertained of the nature of gout, and so many contradictory methods of treatment have been resorted to. Most of these may have been occasionally serviceable, but not one has been found generally or permanently successful; and for very obvious reasons: they have not been suggested by any clear, sound, and comprehensive acquaintance with the true causes and nature of the disease, but simply by a desire to combat its more prominent and severe symptoms. Partial or occasional relief in this way, obtained for the most part at first by mere accident, has gained to certain remedies an unmerited popularity, and has led even medical practitioners rather to confide in the limited, deceptive, and uncertain experience of occasional cases of success, than to inquire into and establish the principles on which this or that remedy has produced its results.

“The way to discover a safe and effectual method of curing any disease is surely not to go hunting after fancied specifics, applying them in every fresh case that occurs, with a blind and uncertain temerity. This, in fact, is nothing else than to make the human constitution a subject of empirical experiments; and, if ever disease has given scope for experimenting with rash and hazardous remedies, the gout is that disease. What with rules of abstinence and starvation, cold applications, the Portland powder and other indiscriminate tonics, the eau medicinale, colchicum, and such other deleterious narcotics, producing temporary relief, but real and irretrievable injury,—it may be truly said that remedial measures, indiscreetly used for the cure of gout, have shortened more lives than the disease itself would have done. Common sense, and the sad experience of numberless unfortunate cases, therefore, alike admonish us no longer to proceed groping our way in the darkness of empiricism, but to go at once to the root of the matter, under the conviction that the true method of arriving at a cure for the malady is, in the first instance, to ascertain what are its real causes; and, secondly, to endeavour to demonstrate its real nature. This once accomplished, if experience has shown any

methods of treatment to be beneficial, we are thus enabled to judge on what principles these beneficial effects have been produced, and we are prepared to apply them with success,—at all events with entire safety in new cases.

“In conducting this inquiry into the causes and nature of gout, we shall draw an accurate and broad distinction betwixt the mere disposition or tendency to gout, and the disease itself; between the causes which induce the gouty disposition, and those which excite the paroxysm in its peculiar and truly distressing symptoms.” (P. 3.)

He then delineates the general arrangement of his subject, of which we quote the first division, the development of which alone occupies the present volume.

“The Gouty Habit or Diathesis.—That peculiar habit or state of the body induced by the disposing causes, and constituting the liability to a paroxysm or fit of gout, from exposure to the occasional exciting causes.

“Here we shall inquire into—

“1. The history of the circumstances, constitutional or extraneous, which generally attend the origin and progress of the gouty disposition.

“2. Present an historical description of those symptoms by which the gouty habit of body is indicated.

“3. Inquire into the true causes usually concerned in producing the tendency to gout.

“4. From the facts adduced we shall draw certain pathological conclusions, tending to show what is the peculiar nature of the gouty habit of constitution; what disordered state of the functions of the body constitutes the gouty peculiarity.” (P. 7.)

The author's history of the circumstances, &c. is unnecessarily long and verbose: it comprehends thirty-two distinct general observations. Amongst the predisposing circumstances, he admits that “the children of gouty parents are, upon the whole, more frequently subject to this disease than others;” but also affirms that the children of those who have fallen victims to apoplexy and paralysis are extremely subject to gout.

He considers the *male sex* more liable to regular acute gout than the female, but contends that this opinion is carried farther than facts will warrant; and asserts, what few will deny, that gouty affections, of an irregular and internal description, are very prevalent among women.

Though SYDENHAM, CULLEN, SCUDAMORE, and others, affirm that people of a robust make and constitution are peculiarly exposed to gout, yet, since “all impartial observers” own that it not unfrequently occurs in those of a contrary make, and Sydenham himself says that “some-

times, though seldom, it seizes thin folks," therefore we are fairly prevented from concluding that gout arises from plethora.

The author lays great stress on the facts that its victims are not the young and vigorous, but those worn by age, disease, excesses, &c. and such as are placed in circumstances tending to exhaust the nervous energy: and in this way he considers excessive indulgence in venery a powerful promoter of the gouty tendency or diathesis.

But, though indolence and habits of feasting, and a too-nutritious and copious table, have been generally set down as principal causes of gout, still it is equally true that many temperate individuals,—some real disciples of CORNARO,—and those who suddenly exchange luxury and a full diet for abstemiousness and a meagre fare,—and others, on the contrary, who emerge unexpectedly from poverty and starvation to affluence and the enjoyment of sumptuous repasts, are all occasionally seized with gout, notwithstanding their various and even opposite modes of living. Mr. Rennie, therefore, here is justified in affirming, that "no view of the causes and nature of the disease can be correct which does not reconcile in a satisfactory manner these very opposite facts."

"Gout has been observed to be much more prevalent in certain classes of society than in others. This evidently arises from the particular pursuits, pleasures, habits of diet and regimen, and various external circumstances incident to different stations in life." (P. 10.)

"Although gout undoubtedly is more frequent amongst the affluent and higher circles, it is far from being confined to such classes. In some form or other, it may be found from the palace to the cottage. Whence the far-famed distinction, the *poor* gout and the *rich*."

"The gout of the humble walks most frequently assumes the irregular, anomalous, and internal forms, and is often complicated with other diseases. Genuine gout, in its decided, severe, and intractable forms, prevails chiefly amongst the higher and opulent ranks. It merits notice that, in certain circumstances of climate, for instance in the northern latitudes, the disease is almost exclusively confined to the rich. In the cyder districts of England, the poorer orders are very generally afflicted with the malady."

"The servants of the rich, who enjoy in ease and repletion the advantages of wealth, and are subject in no small degree to its temptations, often become gouty. The butler and coachman are often seized, or a favorite pampered valet. Also publicans, and the drivers and guards of mails and coaches, as I am informed." (P. 11.)

The author then proceeds to enumerate a variety of cir-

cumstances, physical, moral, and intellectual, all of which, by general consent, predispose more or less to nervous debility; and these he considers proportionably powerful in producing a tendency to the disease of which he treats.

In his remarks on climate, Mr. R. asserts that "The inhabitants of insular situations, and especially on the borders of low, damp, level districts, subject to agues, are much disposed to gouty affections. The climate of England possesses supereminently those very peculiarities which general observation has shown most productive of gouty disorders. Accordingly in England gout abounds amongst all classes. Take a damp, swampy, variable climate, everywhere within the greater extremes, and you find gouty disorders also abound." (P. 13.)

But the fact that gout is little known in Holland would seem to indicate that the author attaches an exaggerated influence to climate. VAN SWIETEN, it is true, attributed the exemption which his countrymen enjoyed from gout, not to the salubrity of their climate, but to their ignorance of the use, or rather the abuse, of the vine.

After stating that one of the most frequent and invariable forms of disordered circulation to which the gouty are subject is a determination of blood to the head, the author makes the following interesting observations, in which he most unequivocally displays his opinion as to the nature of gout.

"In persons whose constitutional energies have been much impaired, this takes place sometimes in a very direct and unexpected manner; but determination to the head much more frequently ensues as a consequence of the previous disordered states of the circulation just noticed. Persons liable to pulmonary disorders, to obstructed liver, to dyspeptic stomach, and a congestive obstructed state of the bowels, have on all occasions shown a peculiar tendency to the farther complication of determination to the head previous to the accession of gout."

" 'It is well known,' says Dr. Parry, 'that the diseases which more especially precede gouty paroxysms, or occur in their intervals, are those of the alimentary canal and head.' And he endeavours farther to show that all those symptoms usually attending gout, and styled nervous, 'proceed mainly from a determination of blood to the alimentary canal and head.'

"While we coincide with Dr. Parry in the observation of the fact as here stated, we can see no grounds for banishing the nervous system from all pathological inquiries, as that author has done. However difficult it may be to separate the functions of the vascular system from those of the nervous, which no one can ever expect to do with any success, there still remains a most important class of disordering causes, which produce their effects on the body chiefly, if not solely, through the medium of the

nervous functions ; and the particular states of the nervous system, and the laws regulating its functions, must always constitute an important branch of pathological inquiry. In tracing gout to its remote causes, the condition of the nervous system demands a peculiarly close attention.

“Many, if not all, of the causes of gout produce their effects chiefly through the medium of the nervous system. In viewing determination of blood to the head as one of the principal and invariable of the causes which induce gout by disordering the nervous system, we may be near the truth; but it is not the only originating cause of this malady ; numerous others might be referred to as lending their influence.” (P. 20.)

We think our author speaks too sweepingly when he maintains “few there are who do not become remarkably *nervous* previous to falling into gout.” We are ready to admit that few individuals are long visited by gouty paroxysms who do not become more or less the subjects of morbid feelings and a depressed mind ; but we incline to believe that thousands receive their first visitation with a mind which has till then continued undisturbed, and habitually free from the intrusion of anxiety or imaginary fears and conceits.

In his history of the symptoms which characterise the gouty habit, the author scarcely omits the enumeration of any which, directly or indirectly, might be supposed to indicate a loss of nervous energy, either in the entire system or in some of its most important organs. And we think this part of his work will be considered unnecessarily minute and redundant. His observations, however, for the most part, are practical and judicious, and, barring two defects, those of repetition and amplification, might pass uncensured. Yet the commission of these faults is so destructive to the comfort and instruction of the reader, and the omission of them so easy for the writer, that they deserve severe reprehension in all professional works ; in which, nevertheless, they most abound.

“The origin of the gouty disposition is usually slow and gradual, and sometimes imperceptible to the individual himself. The symptoms by which its advance is indicated vary considerably in individual cases. This is only what might be expected from the variety of circumstances just detailed, under which this habit is acquired. And not only are the external circumstances various and dissimilar, but constitutional peculiarities of the most diverse nature occasionally terminate in gout, under exposure to certain causes or combination of causes.

“One man is powerfully muscular, another feeble and slender ; one is corpulent and unwieldy, another spare and agile ; one is a perfect specimen of conviviality, given to every luxury and excess,

—another a pattern of sobriety, temperance, or starvation; one is of habits unceasingly active, while he has the power of motion,—another is by necessity, or profession, or pure laziness, addicted to indolent inactivity; one is of a sanguine, energetic temperament,—another nervous and irritable,—a third phlegmatic,—a fourth melancholic; one is full, florid, and plethoric,—another pale, sallow, papery, has been subjected to bleedings and cuppings without end, till he has perhaps lost and renewed every particle of red blood in his body. We have one habitually dyspeptic for years,—another continually bilious,—a third naturally (i. e. constantly) costive,—another quite the reverse. One has been subject to acute inflammations,—others to long-continued organic affections; while some few have never known what disease of any kind was, but have been accustomed to laugh at physicians, and to enjoy with seeming impunity every luxury and indulgence that might fall in their way. Yet one and all of these, somehow or other, find themselves, at some period in their passage through life, arrested by this unwelcome malady.

“Seeing the circumstances and constitutions of the gouty are so diversified and so opposite, and that the causes producing the diathesis are so various in kind, degree, and combination of influence, it is plain that no description, however minute, could be found to embrace the symptoms peculiar to every case.” (P. 23.)

After stating that muscular debility generally precedes gout, and evinces its existence in the muscular coats of the intestines by their excessive distention with flatus, and in the abdominal muscles by a soft and flabby state of the belly, which becomes “in the corpulent loose and pendulous,” he maintains that the corpulency is seldom real, and adds—

“Fulness and enlargement of the abdomen is by no means necessarily attendant on the gouty state; for sometimes the belly is so small in certain enervated, emaciated invalids, that you can feel the aortal pulsations almost under your finger, the abdominal parietes lying close on the spine; as happened lately in a young man, who had lain a month in bed in excruciating tortures before I saw him, and who was never accustomed to full living, who was spare, pallid, and the very reverse of plethoric, (*uxore sterili permasculâ*,) and he had been on low diet for weeks. This case was put under medical regimen, and ordered animal food thrice daily, with wine, and in a week or two he was walking about entirely free from gout. How absurd then to tell us that gout proceeds from plethora!” (P. 26.)

The author then depicts the various alterations in the locomotive powers, and the divers signs by which the form and countenance proclaim the commencement of a gouty tendency in the constitution. “The derangement of the circulation,”—“the complexion characteristic of the gouty state,”



—"the state of the skin,"—the functional disturbances likewise arising from disordered distribution of the blood in gouty cases, are all expatiated upon; and the different train of phenomena as they occur in pulmonary or hepatic congestion described.

"Another indication of approaching gout is a more than usual tenderness and delicacy of constitution, and a greater susceptibility to be injured by the disposing causes of the disease.

"This delicacy of constitution gradually increases more and more, so that the invalid, whatever he may have been in former times of health and vigor, now feels himself, earlier than is natural to his age, sensible of growing infirmities. In fact, a 'premature old age,' as Sydenham terms it, comes on, in direct proportion to the expenditure of the constitutional strength, by those imprudent excesses in which he has indulged; and, before the full extent of the mischief is known, it is generally too late to prevent the consequences.

"The constitution thus impaired becomes more and more susceptible to climate and weather, especially feeling the effects of cold, of wet rainy weather, and of sudden changes; also of easterly winds, of evening air, and the access of winter. He finds it necessary to be more attentive than formerly to his dress, which he must carefully adapt to the weather. Indeed, he is continually subject to colds and rheumatic affections on the slightest exposure.

"The approach of November, and the wet and cold of winter, brings along with it the certainty of some serious attack of illness, which on each returning year requires more care and confinement to restore. The severity of the winters, and the moisture and changeableness of an English climate, are now a constant source of anxiety, the never-ceasing theme of complaint! Add to this the necessity of remaining within doors in unfavorable weather, in which case he suffers greatly from want of exercise, especially if in a close tainted atmosphere; becoming languid, nervous, irritable, flatulent, dyspeptic, melancholy, sleepless, and despondent. He is much more easily fatigued than he ever before recollects, whether by corporeal exertions or even mental efforts, which are a severe exhausting drudgery, and he naturally prefers the lightest and most frivolous amusements. Wakefulness, or late hours in company, or otherwise, soon show their effects on his countenance, in the pale, haggard, worn-out aspect, and especially if attended with too much wine. Hard study, close reading, or precise calculations, produce much confusion of mind, languor, and irritability; in fact, he is hardly capable of fixing his attention. Unusual abstinence or excess are alike hurtful. Confinement of the bowels or flatulence, and in fact the slightest derangements of the digestive functions, are attended with much annoyance.

"He has of late become so delicate, that if he changes his bed, or shifts his flannels, or gets damp feet, or is exposed out of doors in wet chill weather, or in easterly winds; or if he has dined out,

and taken a glass too much, or has not been very circumspect in what he eats, he is sure to suffer a degree of inconvenience to which he was in former periods a stranger. He tosses half the night in sleepless anxiety and disquietude; and dismal dreams, pregnant with confusion and horror, infest his broken slumbers. In short, a thousand undefinable sources of continual and serious inconvenience now attract his attention, which he never discovered before; and if, regardless or unaware of their hurtful influence, he continues exposed to it, a long train of new and uneasy symptoms prey upon his comfort. No wonder that he is depressed and despondent. Those who have had any of the important organs habitually disordered, are subject to attacks of serious disease." (P. 28.)

Then indigestion, with its host of distressing satellites, are brought into prominent notice, and treated with all that minute attention which they have been accustomed to receive from most writers on this disease.

"There are however invalids, verging upon the gouty habit, or already fallen into it, who, from long-continued dyspepsia, have learnt the necessity of consulting their stomach in every article of food they put in their lips: they practise self-denial, and discipline their taste most cautiously, for the sake of their weakened stomach; and, by dint of long experience, they do come to discover what food agrees with their digestion. But when their stomach, from the simple state of dyspepsia, has undergone the farther transition into the gouty peculiarity, these invalids will find all their former experience quite at fault. They have been accustomed to judge of suitable diet chiefly by their sensations of comfort at stomach after meals. Now this criterion fails them entirely, and they may take, from day to day, the most hurtful diet, without ever being aware, from the sensations at stomach, that it is hurtful. Woefully are they chastised for their unconscious errors by the invasion of gout, to them quite unaccountable. Such invalids as these can no longer trust to their own experience. To them a new set of rules is necessary, rules founded on sound views of the true nature of gout, aided by a correct knowledge of their peculiar constitution.

"This tendency of the stomach to be disordered by food which creates no uneasy sensations at the time, is a very curious circumstance; and is an almost invariable attendant of that weakened condition of the organ characteristic of gout.

"Imperfect digestion of fat is often met with in gouty stomachs, and the smallest particle will disagree. Butter and pastry also lie sour and rancid on such stomachs. Cheese also, salads, and cold or acid fruits and acid liquors, are uniformly hurtful, occasioning effects quite specific on such stomachs." (P. 46.)

The various states of the bowels, which usually mark, according to Mr. Rennie, in legible characters the gouty

tendency, he next enumerates with much minuteness and care. After stating that costiveness is a common forerunner of gout, and that its effects have for centuries been incorrectly attributed by physicians to plethora, which opinion is contradicted and annulled by the fact that bleeding will sometimes, in such cases, superinduce a paroxysm of gout; to effect which, starvation has a still greater tendency. He adds—

“*Periodical purgings*.—Besides habitual costiveness as characterising the gouty habit, there is another state of the bowels to which they are sometimes subject, quite the opposite, and that is periodical purgings.

“It is a very curious observation, that those people who have been most remarkable for general costiveness for years before acquiring the gouty habit, will become subject to sudden attacks of purging shortly previous to the accession of gout. These spontaneous purgings are to them a new, and altogether unaccountable, change in their habit. They are at first charmed with the relief so produced, and hail it as a salutary crisis of nature. Farther experience, however, generally convinces them of the contrary. They come to find that their bowels have acquired an extraordinary degree of irritability, that they are weakened in tone, and remarkably under the influence of the weather and seasons; and the slightest errors in diet affect them with disturbance. Those sudden purgings become occasionally violent and protracted, with severe twisting pain, straining at stool, and great general debility; and, after the purging subsides, there is not felt that happy relief at first anticipated, but a degree of flatulence at stomach, indigestion, perhaps obstinate costiveness, frequent desire to go to stool without any effect, bearing down efforts, and perhaps piles.

“There are various kinds of diarrhoea to which gouty habits are subject.

“1. Simple watery diarrhoea. This occurs usually in debilitated habits, after any exposure to cold or wet while the body is heated; chiefly in spring and autumn. It is at times very severe and protracted. I have known an attack last for three or four weeks almost uninterruptedly, causing much emaciation and general debility. More usually, however, an attack lasts three or four days; after which, a relapse to obstinate costiveness ensues, with tendency to piles, uncomfortable fulness in the stomach, uneasy sensations in the head, and sometimes gout.

“2. Bilious diarrhoea. When costiveness has continued some time, bilious diarrhoea sometimes operates as a spontaneous relief to the disturbance thereby occasioned. The bile, long pent up in the first passages, gets exit into the alimentary canal; irritates the sensible mucous membrane by its acrid stimulus, with twisting, griping pains, and rolling sensations in the bowels, which

create great depression. The bile is at length discharged in copious quantities, acrid and hot, and often excoriating the anus, causing very violent and painful evacuating efforts.

"3. In some cases, especially in autumn, these biliary purgings are still more severe, and assume all the peculiarities of cholera morbus; spasms in the bowels, exquisite griping at the navel, sickness, vomiting, tenesmus, violent pain at stomach and duodenum, which feel as if twisting themselves in all possible contortions; anxiety, cold sweats, and great depression of strength. Such attacks as these usually come on after some exposure to cold and wet, while the body is heated; beginning with chilliness, cold feet, spasms, severe headache, giddiness, &c. Errors in diet contribute. Fruit eaten when the stomach is loaded with bile, or while the perspiration is checked suddenly; also cold drinks will cause the same.

"In some cases of diarrhœa, the stools are mixed with blood; and periodical purgings of blood are not uncommon in gouty people.

"4. There is another affection of the same kind to which gouty habits are sometimes subject, especially such as are much reduced and disposed to dropsy, and who reside in fenny aguish districts.

"It begins with chilliness and shivering, cold extremities, great depression and sense of sinking, often swimming in the head, and sense of great weight and pain across the loins, and betwixt the shoulders; there is sickness and oppression at stomach. The invalid is obliged to go to bed. Then succeed reactive fever, wakefulness, mental wandering, nervous confusion, spasms, severe pain in the bowels, and purging. The stomach and bowels are enormously distended with pent-up flatulence, with a rumbling noise and twisting; irritative, griping action around the navel and in the colon. There is painful tenesmus, frequent watery stools, with much straining and blood.

"The skin is cold and clammy, with partial sweats; the pulse quick and hard; tongue coated, but moist. Such an attack I have known continue for weeks, till actively treated, and then pass off in a fit of gout in the extremities.

"It is curious to observe how subject gouty invalids are to cholera and bilious flux, at those seasons when the disorder prevails.

"In these attacks of watery, bilious, or bloody diarrhœa, the bowels seem to be affected with an inordinate sensibility, with a determination of blood to the mucous membrane; and this determination is the consequence of that weakened irritable state of the general habit, produced by the disposing causes." (P. 50.)

He then briefly notices the state of the kidneys and urinary passages; and regarding the peculiarities of the urine, he coincides with SCUDAMORE.

The following are the other heads under which he has as-

sembled a vast catalogue of symptoms, which he considers amongst the characteristics of the gouty diathesis. "Perspiration. A tendency to conversion of various functions into each other: as example, attacks of purging remarkably alternate with copious perspirations. Nervous symptoms. The state of the mind. Sleep. Impaired perception of the senses. The temperature of the body."

He concludes with the *history of symptoms*, by saying—  
 "In general, amongst the gouty who inhabit large towns, where the air is confined and impure, nervous symptoms predominate. In the inhabitants of the country, disorders of the circulation are more prominent; the sanguineous diathesis prevails, and gout partakes more of the inflammatory character. In the habitually intemperate and luxurious, and the debauchee, the digestive organs attract the greatest attention. In all cases disturbance, in a greater or less degree, in these three important orders of the functions, invariably precedes and attends the gouty diathesis. The symptoms never are confined to one alone, although sometimes more particularly prominent in one than in another, according to circumstances. The causes, too, which dispose to gout are all such, in their nature and operation, as to affect each of these functions necessarily and directly; and, when these causes have been in operation, the symptoms which we have described are the natural result. This leads me to treat of the disposing causes of the gout in their operation and effects on the constitution. What these causes are which engender the gouty tendency, and, from a state of soundness and health, bring the constitution into such a state of depression and continual liability to suffering, is an inquiry most interesting to every gouty sufferer, and not less so to the pathologist." (P. 78.)

*"Inquiry into the true Causes usually concerned in producing a tendency to Gout."*

The hereditary nature of gout is discussed by the author at considerable length, and he cites many authorities pro and con; but leaves the question undecided, after shewing a preference for the positive side. He will not allow *sex* to have any influence in producing the diathesis; and contends that women are only less liable to gout because less exposed to its causes; that the state of menstruation has no connexion with the disease, since it takes place alike before, during, and after the cessation of the menses,—when they are scanty, copious, or irregular. "There is no uniform rule."

"Have form, size, or proportions of the body any influence in predisposing to gout?"

"When slender and originally delicate persons are seized, we always find some peculiar advantages existing in their favor, calculated to sustain their constitution under the impairing causes to

which they are subject. Affluence and the comforts of life will preserve many an invalid from a premature grave, leaving him under a long protracted struggle with the gout; whereas, were he poor and necessitous, and exposed to hardships, he would not have survived. So a strong constitution will enable a man to struggle long with impairing causes under the gouty diathesis, when, if he had been weak, he must have fallen an early sacrifice. This is the true explanation of the size and athletic form of so many whom we find doomed to a gouty old age. It is the large head, capacious chest, and original organic vigor, which has carried them through; and there is no connexion whatever between the size, form, and strength of the body, and the gouty tendency, further than this,—it is merely a coincidence modifying the influence of the other disposing causes; and this is confirmed by considering the question which follows." (P. 87.)

He considers that age has no direct influence in producing this diathesis, since, *cæteris paribus*, those who are exposed to the greater number of debilitating causes are uniformly the earliest victims of gout.

Indolence is not really a cause of gout, but has been mistaken as such, because exercise, which greatly increases the nervous energy, prevents its recurrence from other deleterious influences. Impure air, with Mr. Rennie, has a most preponderating influence in producing gout; which opinion he supports with much good sense. He attributes nearly an equally injurious influence to defective clothing and damp beds.

"The practice of sleeping in bedclothes that have contracted damp is of all others the most prevalent, yet the least appreciated, mode in which various serious disorders are brought on in this country. In a moist climate such as England, particularly in the winter season and rainy weather, this is almost universally the case, and no sufficiency in the building of houses can effectually prevent it. Woollen blankets, in particular, imbibe moisture from the surrounding air with avidity, and are always saturated in proportion to its humidity. This is easily put to the test by holding woollens, that have been in disuse for a day or two in damp weather, to the fire: the heat causes the moisture to evaporate as perceptibly as if damped on purpose. A person who envelopes himself nightly in bedclothes thus charged with moisture can hardly escape evil consequences. Even the most robust, on occasions, contract serious illness from sleeping in a bed more than usually damp. How much more, then, the enervated and susceptible frame? Some such, it is well known, from getting a damp bed, in travelling or otherwise, contract disease from which they never recover. Inflammations, severe rheumatisms, and various chronic disorders of the internal organs, may often be referred to this origin. But there are, besides, large classes in the commu-

nity who, in a very insidious and imperceptible manner, fall into bad health, and linger for years under chronic maladies, the real origin of which they cannot discover; and such people will find a degree of dampness of their beds, hardly often perceptible to the sensations, to be no unusual source of their sufferings." (P. 115.)

He next examines the influence which excessive study, the passions, copious bleedings, climate, locality, and the seasons, and errors of diet, exert in producing the gouty diathesis, with much logic and emphasis; and apportions to each a degree of power expressed by the ratio in which they individually exhaust the energy of the brain.

The author at length enters on the description of the diseases which dispose to gout. But here we forbear to follow him, as what he relates regarding these is, for the most part, an amplified recapitulation of what was either distinctly said or implied in former parts of the volume.

The following extract, with which we close our remarks, contains a pretty correct outline of the author's doctrines touching gout.

"From the various facts and observations that have been adduced, the inference seems direct and natural, that the gouty peculiarity of constitution depends, directly and essentially, on a certain condition of the brain; and that a correct and clear view of the relations of that organ to the other functions of the body, and a due estimate of the peculiar consequences arising from certain morbid states of the cerebral functions, furnishes the true key to the pathology of gout, hitherto so much an object of anxious research. If this view of the disease, so little dreamed of by those whom this disorder has so perplexed and baffled by its ever-changeable and unaccountable features, could be established on clear and substantial grounds, more would thereby be gained in the progress towards a sound and scientific method of treating the disease, than by all the attempts hitherto made at the discovery of a specific remedy for the malady.

"The position that gout depends on a certain state of the brain, is not a speculative and visionary theory: it is supported by a mass of concurrent evidence, which embraces the whole history of the causes and symptoms of the disease, as well as by the effects of every remedial measure that has been attended with success.

"That state of the brain in which I conceive the essential peculiarity of the gouty diathesis to consist, is, in the first place, a deficiency of the cerebral power; and, secondly, a congestive state of the cerebral vessels, and these two conditions being co-existent.

First, with respect to the cerebral power, we have already shown a variety of very influential agents by which this is impaired; and we have shown, by incontrovertible evidence, how often, on inquiry into the history of gouty invalids, they are found to have ope-

rated; and how, on physiological principles, those very symptoms which characterise the gouty diathesis naturally result from their operation. We shall very briefly refer to these debilitating causes.

" 1. Years. After a certain period of mere existence, the brain loses its vital power, and cannot be restored; the susceptibility of the organ to usual stimulation and excitement is impaired; an imperfect and irregular exercise of the cerebral functions results; whence, in old people, mental hebetude and debility of body pervading all the senses and functions.

" 2. The brain is often prematurely exhausted and impaired in its vital energies by various causes, so as to engender the gouty peculiarity.

" 3. Excessive sensual indulgence is a most direct and influential means of wasting the vital power of the brain.

" 4. Narcotic and spirituous liquors, habitually and largely used, also greatly impair the cerebral energy. How often this unfortunate habit of excess coexists with the gouty habit, needs no proof.

" 5. Hard study, anxious excitement of mind, intense application, and night watching, do also wear out the cerebral power.

" 6. The blood sent to the brain may be impure and imperfectly arterialed, and inadequate to maintain due vital energy of that organ.

" 7. Mere deficiency in the quantity or nutritive quality of the blood, arising from excessive bleedings or impoverishing diet, directly weakens the powers of the brain.

" 8. Any sedative, co-operating with the above causes, produces a much more decided effect on the cerebral power. In this way, cold applied to the surface of the body, from insufficiency in dress and exposure to a moist climate, habitually depresses the cerebral power.

" Such are the causes usually concerned in creating that depression and impairment of the cerebral power which ultimately terminates in the gouty state. Varieties, almost endless, occur, in the manner, degree, and complication in which their influence is exerted; some of which have been described in detail under the respective heads. Under all the circumstances and causes whose influence we have described, however, one uniform result has invariably been recognised,—i. e. a determination of blood to the head, supervening upon the derangement of the digestive functions, and the depression of the nervous energies, which paves the way for gout.

" From this general fact, therefore, we are entitled to infer that this determination of blood to the head has, in some way or other, an important, if not essential, connexion with the gouty state. In this inference we are strongly supported by the authority of Dr. Parry; that instructive writer having traced, through a number of gradations, those derangements of the circulation which precede



the gout, and ultimately arrived at the conclusion that gout is an effort of nature to rectify a previous disordered state of the circulation, in which it is directed in excess to the alimentary canal and head. While we concur with this accurate observer in the matter of fact that a determination of blood to the alimentary canal and head does uniformly, in some degree, precede and coexist with the gouty peculiarity, we arrive at a different conclusion as to the manner in which the gout results from this pre-existing disordered state of these organs. We do not confound all impairment of the nervous system with a determination of blood to the brain, as that writer does. We do not blame nature in the business at all; but we state, as a practical observation, that when the nervous energies have been wasted, enfeebled, and impaired, by the various causes described in this treatise, a determination of blood to the brain is very liable to ensue upon any congestive condition of the organs of digestion, or indeed of any important vital organ. And when this determination of blood to the brain, in such a weakened state, has become habitual, the whole peculiarities of the gouty diathesis manifest themselves. The gout which ensues, so far from being a salutary effort of nature to relieve pre-existing disease, is itself a diseased result of the existing morbid state of the functions, in precise accordance with pathological laws." (P. 191.)

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*Commentaries on the Causes, Forms, Symptoms, and Treatment, Moral and Medical, of Insanity.* By GEORGE MAN BURROWS, M.D. Member of the Royal College of Physicians of London, &c. &c.—8vo. pp. 716. Thos. and Geo. Underwood, London, 1828.

ALTHOUGH we may congratulate ourselves upon having, to a great extent, escaped from the thralldom of the mystified doctrines of the ancient writers upon the general subject of insanity, the purely practical inquirer still too frequently shrinks from this very important investigation, from an unfounded apprehension that he must dip deep into the perplexities of metaphysical disquisition, before he can gather any information upon the subject which will enable him to approach the treatment of mental diseases with any chance of success. Let us, then, premise our notice of the volume before us with an assertion which we do not believe can be refuted. Our treatment of mental diseases, as they are termed, will not be improved by abstract speculations as to the nature and seat of the mind, or intelligent soul. We know nothing of disease of the mind unconnected with corporeal ailment; and, whatever may be the kind or degree of the mental disturbance, we can only expect to be led to its relief by the same train of inquiry which is demanded in diseases which are unattended by any derangement of the

manifestations of mind. It has been very justly concluded by PINEL, that all the speculative writings on the abstract essence of mind, and on the analysis of the human understanding, have contributed nothing to elucidate its disorders. Various hypotheses have been created for the purpose of explaining the nature and seat of the mind, or intelligent soul, and victory has been claimed by their propounders because their speculations have not been positively refuted. But where is the triumph? The fanciful doctrines to which we refer, like the arguments of PARACELSUS, still remain unanswered because they are unintelligible.

We are happy to find that Dr. BURROWS does not commit the much-to-be-lamented and frequent fault of encumbering a really difficult subject with either psychological or metaphysical abstrusities. In pursuing their inquiries into the nature of mind, the ancients plunged so deeply into the mysticism of metaphysics, that they lost sight of the true object of their research.

"The dogma that the soul, or mind, was a divine and divisible principle, governing and directing the intellectual faculties, but independent of organic matter, or (in other words) the body, fascinated and absorbed their whole attention. The opinions thence imbibed have descended through intervening ages, were revived with renewed ardour in the seventeenth and eighteenth centuries; and still, in the nineteenth, exercise a controlling influence.

"The effect has been to consider mental derangement not as a disease connected with the grosser or corporeal part of man, and within the province of medicine, but as a subject of abstract contemplation." (P. 3.)

CICERO, 'an acute observer, remarked that the nature of the human mind was too subtle for our weak perceptions to discover.\* Of its disorders, "the absolute source, if even fully developed," says BACON, "will be found to exist in corporeal changes, or the effects of external agents acting on the gross machine, and not primarily on the immaterial principle, as has, unfortunately for the subjects of disease, been too commonly apprehended.†

Avoiding the dangerous, yet seductive, example of giving free scope to his imagination, by entering into abstract discussions as to the essence of mind, Dr. Burrows steers the more rational course of entering upon the consideration of questions which we trust do not mock the puny comprehension of man. "Let us be content," he wisely recommends, "instead of seeking its essence, to analyse the operations of

\* Tusc. Disput. lib. i.

† Novum Organon.

mind in health, and to endeavour to unfold the causes which influence those operations to the injury and derangement of its functions."

It has been imagined by some persons that our inquiries, in cases of insanity, should refer only to the mental symptoms, and that these are to be conducted in the same way as a clinical examination of the symptoms of bodily diseases. Having by this investigation determined the internal disorganization of the understanding, whence the aberration originates, we may, they contend, trace it to its source, and ascertain the mental process by which it was formed. We fully agree with Dr. Burrows that they who argue thus know little of the matter. The attempt at treating an insane person in this manner would end in aggravation of the patient's state, and in certain disappointment and regret to themselves.

Dr. Burrows conceives that the various phenomena which insanity presents have not been sufficiently studied, either in concurrence or sequence, or in relation to or combination with other cerebral affections. Impressed with this opinion, and that a more careful examination of the causes, both moral and physical, as well as of the various morbid affections in connexion with mental derangement, will lead to a clearer view of the pathology of insanity, he has entered into a wider field of investigation.

**Commentary I. MORAL CAUSES.**—The substance of this introductory commentary may be comprised in a small space. Every impression on the sensorium, through the external senses, may become a moral cause of insanity. All impressions that affect the feelings are conveyed to the sensorium, and operate according to the degree of constitutional susceptibility and the nature and force of the impression.

"The action of the heart is correspondent with this impression, and reacts on the brain and nervous system. Hence there are two impressions: the one primitive, affecting the sensorium; the other consecutive, but simultaneously affecting the heart. Thus the nervous and vascular systems are both implicated; and in this manner moral impressions become causes of insanity. (P. 9.)

The effect of intense emotions or passions, often repeated or long continued, not only disturbs the functions, but will occasion lesions of the brain. Many structural and functional diseases, which are ascribed to physical causes only, may be clearly traced to emotions of the mind.

Mental derangement, it is well known, may ensue from the most opposite passions and sensorial impressions. "Joy and grief, anger and pain, love and hatred, courage and fear, temperance and ebriety, repletion and inanition, application

and indolence, may have the same effect." We do not remember to have found the cardinal virtue of "temperance" ever before accused of leading to insanity.

Dr. Burrows records the following fact, of which we should have been doubtful, had it not been stated upon good authority:

"Actual losses, or disappointments in pecuniary speculations, do not appear to occasion insanity so frequently as unexpected or immense wealth. In the six months succeeding the extensive failures, and consequent distress, of the winter of 1825-6, in this metropolis, there were fewer returns of insane persons in the London district than in any corresponding period for many years past." (P. 16.)

Admitting, as every attentive observer must, the extensive influence of moral causes in the production of insanity, Dr. Burrows cannot assign it so wide a scope as many foreign writers have done. He entertains strong doubts of the fidelity of the catalogue of moral causes which they enumerate with so much affectation of minute accuracy. He has been very careful in his inquiries upon this point, in every case on which he has been consulted, and has "very frequently" been unable to trace any moral cause at all. "The majority originate in direct physical causes, which the privations, and consequent misery, the poor suffer in all countries, as well as their vices, greatly multiply."

Upon this subject the author appears to us to express himself too strongly. Granting that "no moral cause" can in some cases be traced, we at the same time doubt the *frequent* occurrence of such examples. It must evidently also be impossible to separate the moral from the physical effects induced by "privations, misery, and vice."

It is a mortifying yet undoubted fact, that, the higher the degree of civilization, the greater will be the tendency to insanity. We are hence led to exclaim, with ROUSSEAU, "tout est bien en sortant des mains de l'auteur des choses; tout dégénère entre les mains de l'homme." It must not, however, be consequently inferred that savage nations are exempt from this malady.

"The natives of the Indian peninsula, who are far more temperate in diet, and have their passions much more under control, are yet very prone to insanity; and several asylums are now established in the different presidencies for their reception. It is true they are more civilised than the American aborigines; but if civilization bring not with it the wants and vices, and consequent diseases, of Europeans, the exciting causes of mental derangement among the Peninsular Indians appear to be inadequate to produce this physical effect. As they are indubitably a very ancient race,

hereditary predisposition probably exercises a considerable influence upon them." (P. 21.)

In every climate, and in every condition, man is so much the slave of his passions, as to be liable, among other ills, to madness.

Commentary II. *Religion in reference to Insanity.*—We do not believe that religion, in the correct acceptation of the term, can ever be assigned as a cause of mental derangement. Religion is two-fold, true or false. True religion, in the language of the eccentric BURTON, "rears the dejected soul of man: it is a sole ease, an unspeakable comforte, & sweet reposal." False religion is either the vain superstition of idolatry, or the wanderings of a doubting mind, which can settle upon no fixed, rational, or consolatory belief. SENECA has wisely concluded, "*Religio Deum colit, superstitio destruit.*" True religion, *ubi verus Deus vere colitur*, is the "mother of all virtues," and the soother, not the disturber, of the human mind. Dr. Burrows remarks, that "as there is no single passion, when excited to excess, that may not induce mental derangement, so we may readily believe that religion, which influences the internal man more than the passions collectively, may be a cause of insanity. On the other hand, there is no doubt that a lunatic may imbibe a religious as well as another hallucination, and yet be insane from a cause the reverse of religious. In the one case, however, it is a cause, in the other an effect." It would appear that in this passage the author refers to wild fanaticism, rather than to that pure and collected sense of piety which ensures a cheerful mind, which links the welfare of every particular with that of the whole, and to which only with correctness the term religion can be applied.

We are very properly guarded against the very common error of determining the moral cause of the malady from the tenor of the mental aberration. "It is to be feared that many cases have been hastily attributed to a religious origin, merely because the conduct or conversation of the lunatic has exhibited traits of too vivid spiritual impressions." Although Dr. Burrows is of opinion that, under certain circumstances, insanity is occasioned through the agency of religion, he explicitly declares that "it is not from the agency of the Christian faith, in its pure and intelligible form, but from the perversion of it, that many become the victims of insanity." There is no evidence to substantiate that Christianity abstractedly ever produced that effect. In England, where the mass of the people are piously and morally inclined, and where the liberty of theological discussion and religious

worship is tolerated, every variety of schism and sectarianism abounds. Numbers exchange one form of faith for another, and hence the work of proselytism is exceedingly prolific. This, it is very rationally contended by the author, "is the great predisposing cause to what is designated religious madness." The tenets entertained and promulgated may be highly dangerous to the happiness of proselytes, though innocuous to those bred in them.

"Error, till it be known to be such, bears the semblance of truth. Therefore, he who follows with sincerity that form of religion which he has been accustomed to consider as the true one, till he begin to doubt, is not likely to have either his conscience or understanding disturbed on that account. But if doubt arise, and he questions himself, or is questioned, on points of doctrine which he had cherished as orthodox, he may, in the misgivings which ensue, and in the uncertainty whether the old or new path be the right, unless he have a very strong mind, find himself in interminable perplexity. It is in this state the intellectual faculties are most apt to aberrate. The ideas then become fugacious, the conduct corresponds, and insanity is developed." (P. 32.)

Dr. Burrows does not, in fact, recollect an instance of insanity implying a religious source in any person stedfast to his ancient opinions.

A different view is taken of this question by an intelligent writer upon insanity. Dr. KNIGHT\* has only once clearly ascertained, out of nearly seven hundred cases of insanity, that either a religious or a moral cause produced the disorder. He has uniformly found that the patient had betrayed at least equivocal symptoms of insanity before he became a raving devotee; and he contends that from this state of mind has arisen that proneness to change his mode of worship so frequently noticed in those who are termed religiously insane, and "*not* that the change in his mode of worship has caused the insanity."

Dr. Burrows gives several very interesting examples of insanity arising from perverted notions of religion, or from the admission of novel and controversial doctrines. The first is a melancholy instance.

"A single lady, about eight and thirty, enjoying good health, naturally of a cheerful temper, and regular in her devotions according to the rules of the established church, went, in the winter, on a visit. The family she visited were followers of Swedenborg. Partly through importunity, and partly from complaisance, she

\* Observations upon the Causes, &c. of Derangement of the Mind. By PAUL SLADE KNIGHT, M.D. 1827.

attended their worship, and listened to the doctrines propounded. For the first time, perhaps, she catechised her present opinions; doubts arose; and, ere she had renounced her former belief or had adopted the new, she returned home to the vicinity of London. She shewed great and unusual disquietude of mind. Easter Sunday following, which was shortly after her return, she accompanied her mother to church. She stopt to receive the sacrament. There were many communicants; and, when the chalice was presented to her in turn, upon lifting it to her lips, she perceived that not a single drop of wine was left for her! She was excessively disconcerted and confused, hurried from the altar in dismay, and retired from the church. She declared she was lost; for the emptiness of the cup proved she was rejected of God! A furious paroxysm of mania ensued. It was, however, only temporary; and she in a short time regained her former composure.

"This lady soon after married, and was happy in the connexion: but has twice since, about Easter, when her mind has been naturally called to the religious duties of that period, fallen into a state of great despondency. She, however, has sustained the affliction of losing her beloved husband with all the fortitude and resignation of a true Christian.

"In this case, if the religious principles she had always professed had not been unsettled by the new doctrines she had heard, the casualty that proved the exciting cause of the maniacal paroxysm would have failed of any marked effect. (P. 40.)

Five out of the six examples related are females. The selection, the author observes, is not designed. He believes that nearly the same disproportion would be found between the sexes, if every case of insanity complicated with religion were recorded. The explanation of this fact is obvious. Man is physically more robust, and has less sensibility, or irritability, than woman. His education is more solid, and his mind more stedfast. More than one instance has fallen under our observation, in proof of the truth of the following observations.

"Were I to allege one cause which I thought was operating with more force than another to increase the victims of insanity, I should pronounce that it was the overweening zeal with which it is attempted to impress on youth the subtle distinctions of theology, and an unrelenting devotion to a dubious doctrine. I have seen so many melancholy cases of young and excellently disposed persons, of respectable families, deranged from either ill-suited or ill-timed religious communication, that I cannot avoid impugning such conduct as an infatuation, which, as long as persevered in, will be a fruitful source of moral evil. The old Romans knew human nature better: they had a law which forbade any person entering upon the sacerdotal office before the age of fifty. This was to prevent theological discussions before an age sufficiently

mature was attained. If such studies were likely to disturb a Roman of mature age, we may judge the probable influence on a modern of fifteen or twenty. Seriously, this practice is an alarming error: it is growing to an excess fatal to the preservation of intellectual sanity, and in a manner especially dangerous to the rising generation." (P. 56.)

In our next Number we shall resume our analysis of this very interesting and practical work.

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*Elements of Descriptive and Practical Anatomy, for the use of Students* By JONAS QUAIN, A.B. M.B. Member of the Royal College of Surgeons, and one of the Lecturers on Anatomy in the Medical School, Aldersgate-street.

THE student who qualifies himself for the exercise of any department of medicine or surgery, has no ordinary merit. He has to contend not only against the limited means of acquiring a practical knowledge of anatomy, but even the time allotted for this purpose can only enable him, by great industry, to become acquainted with the more important parts concerned in surgical operations.

It cannot be denied that the greatest improvements in modern anatomy are to be ascribed to the continental anatomists, who, by combining this study with physiology and other sciences, have imparted to it the highest interest, and made it rank among the philosophical pursuits.

Physiology can scarcely be said to be taught in this country, when it is considered that the space of four months is only allowed for a course of lectures on anatomy, including physiology, pathology, and the operations of surgery! The works of BICHAT, MECKEL, &c. are now, however, duly appreciated; and let us hope that the increasing cultivation of anatomical knowledge will soon enable us to rival the more favored schools of anatomy of the continent.

The object of Mr. QUAIN'S "Elements of Descriptive and Practical Anatomy" is to make the student acquainted with the present improved state of anatomy, according to the best authorities, but combined with that system of practical demonstration in which the English schools have excelled. It is, in short, a work for the dissecting room, as well as for reference; and the student who is anxious to pursue the subject beyond the directions of our present practical Manuals, will find this book an excellent guide.

The author states that his objects have been—

"To give a condensed and methodical description of the different structures and organs which enter into the composition of the human body.



“ To point out the most convenient methods of conducting their anatomical examination.

“ To indicate some of the more important practical applications that may be made of the facts disclosed to the student during the progress of his inquiries.

“ And, finally, to present abridged summaries of the most instructive principles of general anatomy.

The descriptions are given with clearness and precision, and the histories attached to each operation cannot fail to impart additional interest to the inquiring student.

We can safely bear testimony to the accomplishment of the author's intentions; while the “ Elements,” in fact, prove a complete system of anatomy, worthy of the perusal of the older students.

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## COLLECTANEA.

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Floriferis ut apes in salibus omnia libant,  
Omnia nos, itidem, depascimur aurea dicta.

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### ANATOMY.

*THE Uterus wanting.*—Dr. BRESCHET relates that, last February, a young woman, with fistula in ano, and who, from examination, appeared to have no uterus, applied to M. DUPUYTREN for admission into the Hôtel Dieu. She had never had the menses, yet she always experienced the symptoms which precede their periodical return. The pelvis was rather narrow, but the breasts and the external parts of generation were well developed, and her general appearance quite feminine. The vagina terminated, at about an inch from its orifice, in a cul de sac, smooth and circular, with no indications of a uterus. The rectum was explored, but it led to no discovery.

This female had been living several years in concubinage, and was to be married on her recovery from the fistula.

The operation was performed by M. Dupuytren on the 28th February last, and she died of acute hepatitis on the 15th of the following March.

The body was most carefully examined. The pleura, lungs, and liver presented various traces of inflammation; and the left kidney contained a fibrous cyst, full of a white and inodorous fluid. The clitoris and labia were well developed; but M. Dupuytren thought the cavity which occupied the natural situation of the vagina was the effect only of the efforts at coition. Above and behind the bladder were seen what appeared to be the broad ligaments of the uterus, in which were discovered eustachian tubes and ovaria of a large size. There was no matrix; but, where the tubes joined, their diameter was slightly augmented: yet this part had no cavity, and did not in the least resemble the uterus.—*Repert. d'Anat.*

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### PATHOLOGY.

*Hypertrophia of the Brain.*—Hypertrophia of the brain has been latterly considered a primary disease of this organ; yet it has been, up to the present

period, but vaguely described; and, indeed, the structural anomalies and pathognomic signs of this disorder are not to be understood nor explained without an attentive study of some well-defined cases. M. DANCÉ has for this purpose adduced several very interesting ones; but he is properly careful to inform us, that he does not apply the term hypertrophia, to an augmentation of the brain resulting either from inflammation of its substance, from serous or sanguine congestion there, or from effusion into its cavities. For the afflux and stagnation of the fluids may increase the apparent dimensions of this viscus, but are not incorporated or identified with its substance; whilst real hypertrophia, he maintains, essentially consists in an unnatural augmentation, either as to bulk or number, of the constituent molecules peculiar to each organ. Now the brain is liable to this excess of nutrition, and ultimately to acquire a volume disproportionate to the capacity of its osseous receptacle.

M. Dancé details four cases, which are quite sufficient to prove the existence of this disease; but they are not numerous enough to furnish a complete history of this remarkable change of structure, though they tend considerably to improve our acquaintance with several of its distinguishing peculiarities. The following conclusions may be deduced from his cases.

1. Prematurely increased nutrition of the brain is characterised by the flatness and approximation of its convolutions, the coarctation of its ventricles, and the unusual whiteness and firmness of these parts; and by a singular dryness of its parenchyma and of the arachnoid cavity; whilst the general texture of this viscus evinces no sensible alteration.

2. Hypertrophia has been repeatedly observed to predominate throughout the whole of the cerebrum, but never in the cerebellum.

3. Hypertrophia is so far from increasing the action and energy of the brain, that it decidedly tends to diminish, deteriorate, and suspend them; and these effects are no doubt owing to the continual pressure which the contents of the cranium are necessarily compelled to suffer, to a greater or less degree, in every instance of this ailment.

4. As the symptoms of hypertrophia have varied in different individuals, we are not yet prepared to define it with precision and correctness. However, this affection would seem to be developed very gradually, and under the influence of extremely occult causes.

The adult age may be considered a predisposing cause, (since, in all the four cases alluded to, the patients were between twenty and thirty years old;) and, as occasional ones, contusions of the head (Case 1st), and frequent determinations of blood to that part (Case 4th). But, though every one of these causes seem to be of an inflammatory kind, yet this affection appears to arise essentially from excess of nutrition. For, if we admit that inflammation is the cause, we must also admit that this identical inflammation has simultaneously invaded all the textures of the brain, and affected them all in the same manner and to the same degree, notwithstanding the different functions they perform, and their ultimate peculiarities of structure. But inflammation does not usually proceed in this manner. In a single organ, and especially in one so complicated as the brain, inflammation often produces at the same time congestion, ramollissement, suppuration, and induration. These considerations would induce the belief that hypertrophia is the effect of morbid nutrition; and if so, it is not difficult to conceive that the brain, submitted to an uniform stimulus of nutrition, must become eventually more dense in a similar uniform ratio.—*Ibid.*

*Acute Hydrocephalus, cured by the spontaneous Formation of an Abscess.*—June 20th, 1827, M. A. LARREY was requested to visit an infant, fourteen months old, who had appeared to be in great pain during the last five or six days, and had been treated for worms. Her pulse was strong and frequent, her cries piercing, and she was comatose with convulsions. The breathing was easy, and the belly neither tense nor painful.—Six leeches were applied behind each ear; she was allowed nothing but milk, or water flavored with sugar and “eau de fleurs d’oranger.”

On the 21st, the symptoms were aggravated, and she could keep nothing down; the evacuation of the urine and feces were suppressed; the lethargy lasted longer; the convulsions were more violent; the pupils were dilated; and the head was thrown backwards.—The head was enveloped in ice; sinapisms were applied to the legs, and a blister to the back of the neck, and, in the evening, another to the right arm.

On the 22d, there was no change.

On the 23d, the vomiting and convulsions were so much worse that, when they ceased for an instant, life seemed quite extinct. On this day M. Larrey was told that, twenty-five days before, the child had fallen upon her head. He applied a blister to the head, and the abdomen was rubbed with an embrocation of camphorated oil. The child willingly took the breast, but soon after vomited up the milk.

Excepting that a blister was applied to the left arm, nothing new occurred until the 28th. From that day to the 9th July she took eighteen grains of calomel, and had five drachms of mercurial ointment rubbed along the course of the spine, and behind the mastoid processes, but with no marked alteration, excepting that the vomiting and convulsions were not so frequent. This treatment, after a short intermission, was renewed again, but with no better success. After this, medicines were entirely omitted, for the patient appeared in the last stage of marasmus, and her death was hourly expected.

On the 31st July, however, (about two months after the fall,) an oblong tumor, of the size of a pigeon’s egg, was observed at the inner and upper part of the left arm. The skin over it was slightly inflamed, and it was painful when touched. Cataplasms were immediately used, to hasten on its progress towards suppuration.

On the 2d August, about eight ounces of a white and very firm pus were evacuated from the tumor. The wound was appropriately dressed, and was completely cicatrised in five days.

The child seemed quite renovated from the very day the abscess was opened; and asked for meat, which she eagerly devoured, as she did indeed every kind of food which was offered to her. This appetite continued, without any bad effects, for ten days; and at the end of the month her health was quite restored. The little patient has remained well ever since, even during the period of teething.—*Journ. de la Soc. Roy. de Med. &c. de Toulouse,—Archives Generales de Medecine.*

The Parisian journalist expresses some doubts as to the exact nature of this disease; and we certainly find no evidence in the details which could persuade us that this was a genuine case of acute hydrocephalus.

## SURGERY.

*Case of Necrosis, with Destruction of right superior Maxillary Bone, and Regeneration of the Teeth.* By Dr. KRIMER.—A boy, eleven years old, and of a feeble constitution, after being hastily cured of tinea, was immediately affected with painful swelling of the right superior maxillary bone. His teeth became loose, and pus in several places made its way through the gums. A probe could be passed into the antrum. The right nasal fossa was obstructed, and the eye of that side pushed upwards, so as to cause strabismus and diplopia. The canine tooth and first molar were extracted, which was followed by an abundant flow of pus. A tumor, situated above the internal angle of the eye, was likewise opened. The os unguis and nasal process exfoliated. After awhile, the eye resumed its natural situation, and the anomalies of vision disappeared. Seventy-two fragments of bone, weighing two drachms six grains, were gradually expelled from the ulcers of the gums. The teeth fell out; all the alveolar margin of the maxillary bone, the greater portion of its exterior and anterior surfaces, the base of the nasal fossa, the major part of the palate and nasal processes, and the os unguis, were all destroyed.

The disease increased during four months, when the ulcers began to heal. The patient's complexion became fresh and healthy, and his countenance resumed its former appearance.

The lad had continued well eight months, when he again complained of pain, with swelling of the gums, at the posterior part of the alveolar margin. Where an incision being made, it was attended with no traces of pus, but the pain subsided, and in a few days three molares were seen. Two months later, another molar tooth was discovered. The other teeth have not reappeared; but those which have been replaced have since augmented in size, and were in good preservation three years after their appearance.—*Bulletin des Sciences Médicales*.

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*The good Effects of the Solution of Chloruret of the Oxide of Sodium upon Ulcers.* By M. WILLAUME, Surgeon in Chief of the Hospital of Instruction at Metz.—M. Willaume relates two cases in which he found the use of this solution very beneficial. The first was an ill-conditioned ulcer of the upper lip and ala of the nose. The second was a case in which numerous ulcers threatened to invade all the skin of the legs of an individual, who had been recently attacked with paroxysms of fever. Emollients had been tried without success, when chloruret of the oxide of sodium was applied, and speedily effected the cure.—*Ibid*.

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*Case of Enlarged Bladder.* By JOHN BISHOP ESTLIN, Member of the Royal College of Surgeons, London, and of the Royal Medical Society, Edinburgh.

A gentleman, fifty-four years of age, consulted me in October 1827, in consequence of constant nausea and loss of appetite and strength. His tongue was foul, and his bowels confined. He informed me that for many months he has had some difficulty in passing his water; that a considerable quantity comes away in the day and night, but in small portions at a time and often involuntarily and without any force. He assured me (and I place full reliance on the declaration,) that he had never laboured under gonorrhœa

or any other form of venereal complaint.—I ordered him some cathartics, with calomel; and, when he visited me two days afterwards, he was somewhat better. I then prescribed for him an emetic and a bitter aperient infusion.

15th.—No better. Being anxious to ascertain the state of the urethra, I introduced a middle-sized bougie, which met with a degree of obstruction at six inches from the orifice, that moderate pressure could not overcome; and, as much pain was occasioned by the attempt, I desisted from it for the present.

18th.—I introduced a silver catheter, and found it pass into the bladder without any obstruction. A pint of urine was drawn off; a quantity much exceeding what he has passed at one time for many months.

It was my intention to have passed the catheter again, principally with the view of ascertaining if there were any calculus in the bladder, impeding the passage of the urine into the urethra; but the canal remained in a very uneasy state from the employment of the instrument yesterday; and, as he was under the necessity of going a journey on business in a day or two, I thought it better to delay the attempt.

30th.—He returned from his journey last night, in all respects worse. He has constant nausea, and he frequently passes urine involuntarily.—To have gr. xij. of Dover's powder each night.

November 2d.—Vomiting incessant. The quantity brought up from the stomach is far more abundant than the fluid he swallowed: the rejected matter is of dark colour and coffee-ground appearance. He has some slight alvine evacuations of similar fluid.—A few ounces of blood were drawn from the arm: it was buffy. No relief experienced from the bleeding. Calomel and opium were given yesterday, and are to be continued.

About the 3d, he directed my attention to a swelling in the abdomen, which had escaped my notice when I felt the epigastric region, and when I daily pressed the bowels to ascertain if any tenderness existed. I examined the tumor, and found it to be of an oblong form, situated in the right hypochondrium, about the outer edge of the rectus muscle, extending nearly from the eleventh rib to the right side of the symphysis pubis, and being particularly prominent about the situation of the inner abdominal ring. It somewhat distended the integuments, so as to be perceptible to the eye, and might be considered to be about three inches in width.

His account of this swelling was imperfect, but he believes that he first discovered it last week, while he was absent on his journey. I was unable to satisfy myself as to its nature. It did not answer to the description of any kind of hernia. It was not elastic, nor could any fluctuation be discovered: it seemed to possess considerable solidity. No inflammation existed; as pressure did not detect any tenderness; nor was there any unusual tension over the rest of the abdomen. Turpentine injections were administered, and cathartics and opium taken by the mouth. The stomach rejects every thing, and the bowels are but slightly evacuated.

6th.—He continued to get worse, and I was desirous of having another opinion on the case, and he was visited by my friend Mr. J. C. SWAYNE, surgeon, of Bristol. Upon an attentive examination, as far as we could come to any conclusion, the tumor appeared to be a mass of internal disease, agglutinating the contiguous parts, pressing upon the bladder, and impeding the action of the intestines. By both of us the patient's speedy dissolution

was expected. To his friends and himself the same event appeared so certain that he made a final settlement of his affairs, with considerable effort. For the last two or three days, he has spoken as if he anticipated a fatal termination.—Small but frequent doses of cathartic extract, with opium and purgative injections, were ordered.

7th.—He becomes still worse: some delirium; urine continues to be evacuated, and there is no swelling immediately above the pubes. With the view, however, of exactly ascertaining the state of the bladder, and of assisting, by drawing off the water that might be there, the action of the bowels, we resolved upon introducing the catheter. So near did his death at this time appear to his friends, that they earnestly entreated he should be subjected to no further inconvenience, but allowed to have an undisturbed release. These objections were of course over-ruled, and I introduced the catheter. It passed without any difficulty, and a forcible flow of urine through it occurred. The tumor immediately began to subside, and by the time about three pints of water had been drawn off it entirely disappeared.

The general nature of the disease was now apparent. It could not be doubted that the tumor was a preternatural enlargement of the bladder, and it seemed most probable that the elongated part was the internal coat protruded through the muscular coat; in consequence of which, the natural efforts of the bladder to expel its contents forced them into this cavity, instead of overcoming the cause of resistance at the neck of the bladder. To what extent any morbid impediment existed at the neck of the bladder, it was not easy to determine. The catheter passed without obstruction, and examination per-*anum* detected no disease of the prostate gland.

In a few hours, when the tumor began to form afresh, the urine was again drawn off: the vomiting lessened, and the pulse in the course of the day became firmer.

8th.—Vomiting less frequent; urine drawn off night and morning; the vesical tumor is formed some hours before the introduction of the catheter. Some feculent evacuation followed the enema.

9th.—Vomiting nearly ceased; feculent discharges after the enemata; no power of voiding the urine, but it flows involuntarily upon the re-appearance of the swelling. He takes nourishment.

From this time he gradually improved.

His convalescence was slow, but regular; and he is now (August 1828) returned to his usual state of health, excepting that he feels less strong than he was before his illness. He never allows the bladder to become so full as for any involuntary discharge to take place, or for the tumor to become perceptible. No voluntary power over the bladder has returned. Pain along the urethra is the indication of the necessity to introduce the catheter; and this generally occurs every five or six hours. He is able to walk about, and use his accustomed exercise.

It is probable that some of your readers may feel surprise that the nature of this gentleman's complaint was not sooner detected. Without any attempt to dispute their penetration, or to justify my own want of it, I give the case just as it occurred in practice, with the hope that it may prove useful to others. Late as the knowledge of the disease was obtained, it was a source of great satisfaction to me that it was procured in time to relieve the patient, instead of being discovered by a post-mortem examination; a period to which alone at one time I looked for an explanation of the symptoms.

When the nature of an obscure disease has been unravelled, there is often but little difficulty in deciding upon the course that should have been pursued: but they who have been longest accustomed to medical practice can best estimate the difficulties with which the path of the practitioner is beset in cases of an ambiguous kind, where a valuable life is at stake, and where the hopes, and fears, and interests of anxious relations are contributing to perplex his mind, and to increase his diffidence of his own judgment.—*Condensed from the Medical Gazette.*

*New Operations proposed for the Stone.*—The operation in common use at the Hôtel Dieu is the bilateral, a modification of that of Celsus, in which the prostate is cut obliquely downwards from the neck of the bladder on both sides. The incision in the prostate is thus twice the size of that in the ordinary lateral operation: it will therefore give exit to a larger stone, and render a smaller opening into the bladder necessary for this purpose. Yet cases have occurred where considerable effort has still been required for the extraction of large calculi, and where the death of the patient has been occasioned by consequent inflammation and suppuration within the pelvis. In these cases, notwithstanding, the incision was made to its fullest extent in these two directions above named, the gland was found to be lacerated in a stellated form. It is presumed, then, that if two other incisions be made, one on each side obliquely upwards, the mischief of laceration may be averted.

Dr. VIDAL, who suggests the quadrilateral incision, considers it to be a point of extreme importance not to cut beyond the margin of the gland into the bladder, and that the neglect of this precaution is the prolific source of those urinary fistulae and suppurations which follow the operation.

Where the incision is confined to the prostate, and unaccompanied by laceration or contusion, the wounded portions of the gland, being swollen after the operation, are thereby brought into contact, and the urine, instead of escaping through the wound into the pelvis, passes through its natural channel. Not so when the bladder has been wounded, or when the opening has been made by lacerations or by the gorget, or when portions of the gland have been brought away by calculi studded by asperities on the surface.—*A Correspondent in Paris.*

*Another Operation for the Stone.*—Mention is also made of an operation by BALARDINI, entitled "*la taille mediano*," or median incision, in the raphe of the perineum, extending from the bulb of the urethra to the sphincter ani. The bistoury of the operator is then passed into the bladder along the groove of the staff, and, by cutting its way out, divides the neck of the bladder, the prostate, and the membranous portion of the urethra. The operation is said to be effected with the greatest facility, and to be exempt from the numerous inconveniences attendant on other methods. As no vessels of consequence can be wounded, hemorrhagy may be certainly avoided. The rectum has never been cut in a single instance. The opening into the bladder is the shortest course that can be taken, and admits of greater dilatation than that which is made by any other method.

In comparison with the recto-vesical operation, it may be remarked, that, as no communication between the bladder and rectum takes place, the passage of urine into the intestine, or feces into the bladder, can never occur. This frequently happens in the recto-vesical operation, since, in thirty cases, five have preserved incurable fistulae.—*Ibid.*

*Attempt to cure Hydrocele by the insertion of a Solution of Nitrate of Potash.* M. DUPUYTREN, having observed that a solution of nitrate of potash was readily taken up by serous surfaces, attempted to promote the absorption of the fluid in the tunica vaginalis, by mixing with it a solution of eighteen grains of nitrate of potash in water: an equal quantity of the vaginal fluid was withdrawn, to make room for the nitrous solution. The experiment did not succeed. Inflammation was excited, which formed no part of the intention of the operator; who, in answer to a question whether he expected a cure to be effected by adhesion of the vaginal coat to the testicle, replied in the negative; for nothing would be gained by employing new means of causing adhesive inflammation, inasmuch as we already possessed an effectual remedy in wine and water.

The production of inflammation in this case having been ascribed to the use of too large a dose of the salt, the experiment was repeated on one of M. SANSON's patients, with nine grains only. A month has elapsed without the slightest diminution in the tumor, excepting such as might be accounted for by the occasional oozing of fluid through the orifice.—*Ibid.*

*Convulsions cured by Ligature.*—A girl, between thirteen and fourteen years old, not having menstruated, had been subject for four or five months, without any known cause, to periodical attacks of convulsions. They began by acute pains in the extremity of the ring finger of the left hand, and which were succeeded by a feeling resembling the *Aura Epileptica* through the whole arm. The patient next lost her recollection, fell down, and had convulsions more or less violent, which left her in a state of great exhaustion, so that she recollected nothing that had happened. These attacks, which took place monthly, appearing to the physician to depend upon the want of menstruation, he directed his treatment accordingly; but at the same time he recommended a ligature to be placed round the finger in which the attack began, and by this means suspended the accession. The next day the same pain was felt, and the ligature was again applied; but, whether this was done too late, or was not sufficiently tight, the fit came on then. A fresh ligature was placed above the wrist, and the attack was cut short.

The patient, encouraged by this success, made use of this means whenever she felt the pain in her finger, and by so doing preserved herself from these attacks for several successive days, till the menstrual discharge appeared, and saved her from the risk of a relapse.—*Decades de Med. et Chir. Pract.*

*Amputations of the Uterus.*—Since the last communication made by M. LISFRANC to the Academy of Medicine, he has performed seven amputations of the neck of the uterus. Of these seven patients, four are completely cured, and enjoy good health; two are under cure; and one is dead, in consequence of an attack of peritonitis, which followed the operation. He particularly mentions this fact, since it is the first instance of a patient dying of an affection of this kind; and the peritoneum could not in any way have been injured in the performance of the operation. M. Lisfranc has performed his forty-third amputation of the neck of the uterus, and has had only four unsuccessful cases.—*La Clinique.*



*Ligature of the external Iliac Artery*, by M. RICHARD.—A man was brought to the Hospital St. Louis, with aneurism of the upper and anterior part of the left thigh, extending into the groin. It arose without any known cause. Its pulsations were so powerful, that fears were entertained of the rupture of the sac. The limb was tumefied, painful, and numb; his knee was bent; and the leg was incapable of being brought into a straight position.

The tumor was covered with ice for five days, and the patient bled. On the sixth, an incision, four inches in length, was made in the abdominal parietes, commencing about an inch and a half above the level of the anterior superior spinous process of the ileum, and terminating in the middle of the groin, so as to avoid the epigastric artery and spermatic cord. A small opening was now made in the peritoneum, just sufficient to admit the forefinger, by means of which the iliac vessels were separated. A flat blunt-pointed probe, pierced at the extremity, was used for the purpose of drawing out the artery; and a ligature, composed of two threads only, was passed round it, which the operator tied, after having previously ascertained that compression suspended the pulsation of the tumor. The pain in the limb instantly ceased. No constitutional disturbance followed the operation; not the slightest diminution of heat or sensibility. The patient considered himself well enough to leave his bed even on the day of the operation.

The tumor was reduced two-thirds on the thirtieth day of the operation, and is since quite cured.—*A Correspondent in Paris.*

*On the Danger from Hemorrhagy after the Extirpation of Internal Hemorrhoids.* By M. DUFOUR.—This distinguished surgeon asserts that “the operation should never be performed unless in cases where the life of the patient is in danger; and then, for the purpose of preventing consecutive hemorrhagy, the actual cautery should be applied to the arterial points, from which the blood flows at the time of making the incision.” Notwithstanding, however, this positive injunction, the actual cautery was not used in the only operation which I saw him perform; but no blood flowed from the incision, and the internal pile was small, although it occasioned insupportable anguish, probably from its being accompanied by fissure and spasmodic constriction of the sphincter ani.

In a clinical lecture founded on former cases, he thus expresses himself:

Hemorrhoidal tumors are of two kinds—external and internal. The external form a prominent ring surrounding the anus, composed of little tumors, varying in size and number, covered partly by the skin and partly by the mucous membrane of the rectum, and are more or less of a dark colour. This assemblage of tumors is known by the term *bouvrelet hemorrhoidal externe*.

The internal, on the contrary, are formed above the sphincter ani, and are wholly covered by the mucous membrane of the rectum. They seldom appear externally, unless the patient has been long in an erect position, or after strong efforts to open the bowels. In such cases we perceive them forming in the centre of the preceding an internal hemorrhoid, called *bouvrelet hemorrhoidal interne*.

The latter is much more dangerous than the former. This is the species that furnishes the copious discharges of blood which undermines the health of the patient, which degenerates in intractable and fatal disease of the rectum. It is this where excision so frequently produces internal hemorrhagy, and thereby occasions the loss of the patient.

It cannot, indeed, be denied that the removal of external piles is occasionally followed by hemorrhage; but, as the flow is external, we have timely notice of it, and it is easily restrained. On the contrary, the excision of the internal tumor frequently produces a hemorrhage within the bowels, often not to be detected until it has proceeded to a considerable extent; and the means hitherto employed have often failed.

To avert this mischief, the actual cautery should be applied at the time of the operation: but, supposing this precaution to have been neglected, or only to have been employed on one of the points of the incision, and hemorrhage should take place within the bowels, what are the signs by which it may be detected, and what are the means by which it may be remedied?

The patient labouring under internal hemorrhage first experiences a sense of heat, which seems to ascend the intestine. The pulse, at first intermittent and irregular, soon becomes imperceptible. Cold sweats, deadly paleness, and syncope, more or less frequent, soon manifest themselves; and it is no longer possible to mistake the cause of the symptoms.

Under these circumstances, the patient should be instructed to make an effort to evacuate the blood, and to produce the descent of the intestine; to assist which, it may be useful to inject cold liquid. If the gut appear, the actual cautery is to be applied.

Is this (adds M. D.) a remedy without inconvenience? No. It occasions pain and inflammation, more or less acute; but these effects are transitory. The swelling may for several days impede the evacuation from the bowels; but, before the excision of the tumor, care should be taken to purge the patient, and keep him on low diet, to prevent the necessity of his going to stool.

M. D. closed his remarks by indicating the precautions necessary to be taken for the purpose of preventing the symptoms which often arise from the sudden suppression of the hemorrhoidal discharge.

The patients should be bled every two or three months. If the tumors were of the bleeding kind, leeches should be applied to the anus. If the secretion was purulent, it will be prudent to make an issue in some part of the body before the operation be performed. — *Ibid.*

*Extirpation of Cancers within the Rectum and Vagina.*—Among the operations deserving of notice, from the remarkable success resulting from their performance in the hands of the French surgeon, are extirpation of cancerous disease high up in the rectum and vagina. The unhappy victims of these complaints have hitherto been sacrificed to an opinion of the impracticability of an operation, from an opinion that the *materies morbi* had extended too deeply into the surrounding parts to admit of cure, even if the excision could be effected. M. LISFRANC ascertained, by pathological examinations, that the disease was fairly circumscribed, and generally confined to the mucous membrane, so that its removal might fairly be effected.

Six successful cases attest the propriety of the attempt. Three have been exhibited to the Academy of Medicine; a fourth, from her elevated station in life, would not submit to the ordeal. The fifth and sixth were recently performed, as follows:

CASE V.—The woman was long affected with syphilitic protuberances in the rectum, for which she had ineffectually submitted to mercurial treatment.

in the Hôpital des Veneriens. Syphilitic treatment was again tried by M. Lisfranc, but the disease increased, and ulceration took place.

The performance of the operation having been determined, the lower part of the rectum was included between two semilunar incisions, which were carried through the sphincters. Then, by introducing the forefinger into the anus, the intestine was protruded to an extent of about two inches, and, by means of scissors curved on their flat surface, the whole of the cancerous mass was removed.

CASE VI.—At the clinical lecture delivered on the 22d August at La Pitié, M. Lisfranc thus expresses himself:

At No. 17 of the ward St. Pierre, lies a woman, who some months since contracted a venereal disease, at the termination of which, protuberances appeared in the region of the anus, which resisted all treatment, local and general, and continued to increase until her admission into the hospital. At this period it was evident, on examination, that all the circumference of the rectum was affected; the anterior and posterior surfaces, to the extent of about two inches and a half laterally, somewhat less.

So extensive a diseased surface required serious attention. A few days were therefore suffered to elapse before it was determined to operate. The cancer, indeed, was far advanced, and threatened speedily the destruction of the patient. On the other hand, the extirpation was a measure of difficulty, and of such danger that it might be attended by fatal result during the operation. There was, however, a chance of success, inasmuch as it had proved effectual in five other cases.

On the fifth day the operation was performed, and on the sixth, when this lecture was delivered, no doubt existed of complete recovery.

Semilunar incisions were made through the sphincters in the posterior part of the rectum, for the purpose of facilitating the protrusion of the diseased surface by means of the forefinger; but this was ineffectual, in consequence of the height to which it extended. He then cut through the side of the rectum longitudinally upwards. The effusion of blood was so copious that the plugging of the part with sponge for a few minutes became necessary. The diseased surface was then dissected from the continuous parts, beginning anteriorly. The operator kept two fingers of the left hand in the vagina, while assistants, provided with hooks, preserved the parts in a state of extension, so as to bring them as much as possible into view. The dissections posteriorly and laterally were less painful, and more expeditiously performed; but the operation, on the whole, was tedious and difficult.—*Ibid.*

*Amputation of Cancerous Penis discovered to be unnecessary, by an exploratory Practice of M. LISFRANC.*—The fact previously stated of the frequently circumscribed nature of cancerous affections enabled M. Lisfranc to preserve a patient from the very inconvenient process of amputating the penis, which had been deemed advisable. In this case, when brought into the theatre for amputation, by making a longitudinal incision through the whole of the diseased mass, until he arrived at the sound parts, he discovered that it was bounded inferiorly by the corpus cavernosum penis; so that its removal by a careful dissection was easily effected.—*Ibid.*

*Cancer of the Tongue removed by Incision and Ligature.*—In a case of cancer occupying the whole length of the tongue, a longitudinal incision was made on the right side of the diseased portion through its whole length, whereby the tongue was split into two parts, and a ligature being applied beyond the base of the disease, it sloughed away in a few days.—*Ibid.*

*Fatal Case of Ligature to Polypus Uteri.* By M. MARJOLIN, of the Hospital Beaujon.—A ligature was applied to polypus uteri, which for sixteen months previously had occasioned pains in the womb, extending to the loins, and accompanied by constant menstrual discharge. On the fifth day, acute pains supervened in the belly, especially in the left iliac region; the patient vomited, and had fever. The ligature was loosened, but in four days she died.

Instead of bleeding copiously, the only sanguineous evacuation produced was by forty leeches applied to the belly.

On dissection, pus was found in the vessels of the uterus, whose tissue was red. Five or six ounces of pus were contained in the peritoneal sac of the pelvis. The peritoneal covering of the uterus was inflamed and purulent.

Other fatal cases from ligature are recorded by M. HENRY. M. DUPUYTRON uses the knife or scissors in preference.—*Ibid.*

*Nymphomania.*—At a meeting of the Royal Academy of Medicine, on the 1st of September, M. LISFRANC referred to a case of nymphomania cured by cauterization, and took occasion to remark that it was incorrect to consider all cases of nymphomania and hysteria as of a nervous nature. These affections are often dependent upon the inflammatory condition of the neck of the uterus, or on a turgescient state or hypertrophy of the body of that viscus. He related the case of a young lady who was affected with nymphomania, evidently the result of an inflammatory attack, and which was cured by antiphlogistic treatment, such as local bleedings, warm hip-baths, and emollient injections: these were retained in the vagina by means of a plug of charpie, and were renewed frequently. M. Lisfranc related about ten cases of these affections cured by the same means: nevertheless, he thinks that, when the inflammatory symptoms have been removed by proper means, cauterization may be beneficial.—*La Clinique.*

#### MIDWIFERY.

*Emphysema following Labour.*—A young woman, of irritable temperament, was seized with peripneumony at the beginning of the eighth month of pregnancy. On the seventh day labour came on, and for more than four hours the pains were sharp. A little time after, an emphysematous tumor made its appearance at the upper part of the chest. A practitioner having been called in, found the patient in the following state: The head was of enormous size; the face and neck purple, and considerably swelled; the chest and limbs greatly exceeded their natural dimensions, and the swelling every where presented the characters of emphysema. The oppression was so great that suffocation seemed impending. A large bleeding from the arm was practised, and repeated, in four hours; after which, the breathing was less laborious; at the same time the emphysema diminished, the head and face regaining their ordinary size and colour; but even then the patient could not lie on either side. As there was no lochial discharge, and the abdomen was

very tender, eight leeches were applied to the vulva, and several bleedings from the arm had recourse to. The oppression is stated to have diminished under the use of these remedies, but the patient was much reduced; the tongue dry, the pulse frequent and small; the neck tumified to such an extent that the skin covering it was on a level with the face. A large sinapism was applied to the chest, and the tumified parts were covered with compresses dipped in aromatic wine. On the thirteenth day from the delivery, the state of the patient was rather more favorable; but, as the abdomen was still tender, the leeches were repeated; at the same time, some soup and spoonful of wine were administered. From this time the emphysema gradually disappeared, and the patient recovered.—*Decadas de Med. et Chir. Pract.*

## INTELLIGENCE.

### MONTHLY REPORT OF PREVALENT DISEASES.

DURING the whole of the last month, pneumonic diseases have been very common, especially in children. In a few cases we have found adults labouring under a similar affection, which has generally been combined with rheumatism in one or other of the extremities. Moderate bleedings, aperients, and expectorants, have been successfully adopted. In two instances of the complaint, which has been almost epidemic amongst children, recovery appeared to be retarded by too free bleeding at the commencement. Blisters to the chest have not appeared in any instance, decidedly beneficial, and, in more than one, children have suffered much from the general irritation they produced.

Three cases of severe periodical headache have occurred to us. They were effectually relieved by purging at first, and the subsequent employment of the sulphate of quinine, in one-grain doses three times a day. During the paroxysm the forehead was freely bathed with eau de Cologne, with much advantage.

*Apothecaries' Hall.—Regulations for the Examination of Apothecaries.*—The Court of Examiners chosen and appointed by the Master, Wardens, and Assistants of the Society of Apothecaries of the City of London, in pursuance of a certain Act of Parliament, "for better Regulating the Practice of Apothecaries throughout England and Wales," passed in the fifty-fifth year of the reign of his Majesty King George the Third, apprise all persons whom it may concern:

That every candidate for a certificate to practise as an apothecary will be required to possess a competent knowledge of the Latin language, and, in compliance with the 14th and 15th sections of the said Act, to produce testimonials of having served an apprenticeship\* of not less than five years to an apothecary; of having attained the full age of twenty-one years, and being of good moral conduct.

\* Articles of apprenticeship, where such are in existence, will be required; but in case such articles shall have been lost, it is expected that the candidates shall bring forward very strong testimony to prove that he has served such an apprenticeship, as the Act of Parliament directs.

THE WHOLE OF THE REGULATIONS TO PRODUCE CERTIFICATES OF HAVING ATTENDED NOT LESS THAN THE FIRST AND SECOND COURSES OF LECTURES, CONTINUING TO QUALIFY

Two courses of lectures on Chemistry;

Two courses of lectures on Materia Medica and Botany;

Two courses of lectures on Anatomy and Physiology;

Two courses of Anatomical Demonstrations;

Two courses of lectures on the Theory and Practice of Medicine. These last to be attended subsequently to one course of lectures on Materia Medica, Chemistry, and Anatomy;

And a certificate of attendance for six months, at least, on the physicians' practice of some public hospital or infirmary, (containing not less than sixty beds,) or for nine months at a dispensary; such attendance to commence subsequently to the termination of the first course of lectures on the Principles and Practice of Medicine.

The regulations relating to the order of succession in which the lectures on the Practice of Medicine, and the physicians' practice of an hospital or dispensary, are to be attended, are designed to apply to those students only who commenced their attendance on lectures on or after the 1st of February, 1828; and all such persons are particularly requested to take notice, that, unless they shall have strictly complied with such order of succession, they will not be admitted to an examination.

In addition to the course of study above required as indispensably necessary, candidates are earnestly recommended to attend clinical lectures, and also lectures on Midwifery and the Diseases of Women and Children; on the latter of which subjects, as an important part of medical practice, they will be examined.

The Court have determined, that the examination of the candidate shall be as follows:

1. In translating grammatically parts of the Pharmacopœia Londinensis and physicians' prescriptions; and, after the 1st of January, 1831, candidates will be required to translate portions of the following medical Latin authors, viz. "Celsus de Medicina," or "Gregory Conspectus Medicinæ Theoreticæ."

2. In Chemistry.

3. In the Materia Medica.

4. In Botany.

5. In Anatomy and Physiology.

6. In the Practice of Medicine.

Notice.—Every person intending to qualify himself, under the regulations of this Act, to practise as an apothecary, must give notice in writing, ad-

\* No testimonial of attendance on lectures on the Principles and Practice of Medicine, delivered in London, or within seven miles thereof, will render a candidate eligible for examination, unless such lectures were given, and the testimonial is signed by a Fellow, Candidate, or Licentiate, of the Royal College of Physicians.

† Physicians' pupils, who intend to present themselves for examination, must appear personally at the Beadle's office, in this Hall, and bring with them the tickets, authorising their attendance on such practice, as the commencement thereof will be dated from the time of such personal appearance.

‡ All candidates applying for examination after the 1st of October, 1829, will be required to produce evidence of having attended the physicians' practice at an hospital or infirmary for nine months, or at a dispensary for twelve months.

presented to the clerk of the Society, on or before the Monday, previously to the day of examination; and must also at the same time deposit all the required testimonials at the office of the Hall, at Apothecaries' Hall, where attendance is given every day (except Sunday), from nine until two o'clock.

Persons intending to present themselves for examination are requested to take notice, that they may obtain at the Hall's office at this Hall, a printed paper containing certificates, with blanks (as to names and dates) of all the lectures they are required to have attended, and also of the physicians' practice. These blanks the Court request may be filled up and signed by the respective lecturers, and by the physicians whose practice the student has attended.

Students are enjoined to observe, that, after the 1st of November, 1828, these certificates, so filled up, will be required from candidates for examination. After the same day, no other testimonials of attendance on lectures and medical practice will be admitted, except such as bear the seal of a university or college, and the signature of an officer belonging to such university or college whose duty it is to sign certificates of attendance on the lectures given therein; or such other certificates as have heretofore been received, if the same were obtained prior to the 1st of February, 1828.

The Court will meet in the Hall every Thursday, where candidates are requested to attend at half-past one o'clock.

By order of the Court,

JOHN WATSON, Secretary.

London; September 25th, 1828.

Information relative to the business of this Court may be obtained of Mr. Watson, at his residence, 43, Berners-street, between the hours of nine and ten o'clock every morning, (Sunday excepted.)

\* \* It is expressly ordered by the Court of Examiners, that no gratuity be received by any officer from any persons applying for information relative to the business of this court.

*Biography of Dr. GALL.*—Dr. F. J. Gall was born in 1748, at Tubingen, a small town in the duchy of Baden, which, in the year 1805, was erected into the kingdom of Wurtemberg. In his boyhood he was distinguished by his extraordinary talent of observation, and by the profundity of his knowledge of natural objects. His disposition, far above reflection made him but of little interest to youths of his own age, so that he was generally either associated with companions much his seniors, or was to be found in the fields collecting birds' nests, flowers, or shells.

His father, wishing to turn his mind towards medicine, sent him to Vienna, where he graduated, and where he became a medical practitioner. It was here, during his studies, that he was first impressed with the remarkable want of information on the anatomy and functions of the nervous system; and here he made the researches upon which he based his simple and beautiful view of the uses of the different parts of the brain. It was not till after nearly twenty years of the first conception of the new theory of the functions of the brain, that Dr. Gall made known his opinions to the world. His first lectures on the anatomy and physiology of the brain and nervous system were delivered at Vienna, in the year 1796.

In 1805, Dr. Gall made a scientific tour of the north of Germany, accom-

panied by his friend and pupil Dr. Spurzheim, who was born at Longnich, on the Moselle, in 1776. Dr. S. was associated with Dr. Gall in his labours for several years, and contributed greatly to elucidate the views of Dr. Gall, by his superior knowledge of the anatomy of the brain. He has since collected their discoveries; and, from the rude mass of facts, digested the most simple and most rational doctrine of mental philosophy. As it may be easily imagined, the promulgation of opinions so widely different from the favorite theory of the schools, created a very powerful sensation among the savans. Dr. Gall was, however, well received. To use his own words—"I met every where with a reception the most flattering: sovereigns, ministers, judges, philosophers, and artists, seconded my design of augmenting my collection of facts on every occasion. These circumstances were too favorable to allow me to resist the invitation I received from most of the universities. Hence it resulted that numerous public and private discussions took place upon my doctrine; and hence my notions acquired a greater degree of maturity, than the founders of new doctrines have generally experienced. After having, during thirty years, employed means most diversified of examining the deductions I had made from facts innumerable, I feared neither personal danger nor reproach, but precipitated my great work upon the world."

Political events, about this period, absorbed every other consideration; and the rapid strides that Napoleon was making towards the helm of Europe, left but little tranquillity to the secluded philosopher. Nor did this extraordinary man allow the new philosophy of the mind to go unconsidered; it pleased him, and he spoke of it in high terms; but the Jesuits of France, imagining that the doctrines favored materialism, exerted all their power to extinguish it in its birth. Its range was, however, too extensive for their power.

Dr. Gall then visited England, and ultimately made Paris his place of residence, where he became an eminent physician. Of late years, he gave public courses of lectures on his science at his own house, which were numerous, attended, and his rooms became the resort of the savans of all Europe.

Dr. Gall had a fit of apoplexy a few weeks before his death, which took place on the 22d of August last. The funeral was accompanied by a vast number of eminent literary characters. MM. Broussais, Fossati, Fontanelli, Landrer, Bourdon, and Vimond, held funeral orations; and M. Paillet de Ceombieres spoke some verses near the tomb.

Most of us find some amusement in tracing on fancy's tablet the portrait of a person of whom we have heard much, and particularly after we have read many of the works of an author, but with whom we have had no personal acquaintance. It generally happens, however, that our portrait is not correct, when compared with the original: thus it was with myself. I found Dr. Gall (in 1826) to be a man of middle stature, of an outline well proportioned; he was thin and rather pallid, and possessed a capacious head and chest. The peculiar brilliancy of his penetrating eye left an indelible impression. His countenance was remarkable, his features strongly marked and rather large, yet devoid of coarseness. The general impression that a first glance was calculated to convey would be, that Dr. Gall was a man of originality and depth of mind, possessing much urbanity, with some self-esteem and inflexibility of design.

After presenting my letters of introduction to him, at seven o'clock in the morning, he shewed me into a room, the walls of which were covered with



bird-cages, and the floor with dogs, cats, &c. Observing that I was surprised at the number of his companions, he observed, "All you Englishmen take me for a bird-catcher. I am sure you feel surprised that I am not somewhat differently made to any of you, and that I should employ my time talking to birds."—"Birds, sir, differ in their dispositions like men; and, if they were but of more consequence, the peculiarity of their characters would have been as well delineated."—"Do you think," said he, turning his eyes to two beautiful dogs at his feet, which were endeavouring to gain his attention: "do you think that these little pets possess pride and vanity like man?"—"Yes," I said, "I have remarked their vanity frequently."—"We will call both feelings into action," said he. He then caressed the whelp, and took it into his arms: "Mark his mother's offended pride," said he, "as she walked quietly across the chamber to her mat: 'do you think she will come if I call her?'"—"Oh, yes," I answered.—"No, not at all." He made the attempt, but she heeded not the hand she had so earnestly endeavoured to flick but an instant before. "She will not speak to me today," said the Doctor.

He then described to me the peculiarity of many of his birds, and I was astonished to find that he seemed familiar also with their dispositions, (if I may be allowed the word.) "Do you think a man's time would be wasted thus in England? You are a wealthy and powerful nation, and, as long as the equilibrium exists between the two, so shall you remain; but this never has existed, nor can, beyond a certain period. Such is your industry, stimulated by the love of gain, that your whole life is spun out before you are aware the wheel is turning; and so highly do you value commerce, that it stands in the place of self-knowledge and an acquaintance with nature and her immense laboratory."

I was delighted with his conversation: he seemed to me to take a wider view in the contemplation of man than any other person with whom I had ever conversed. During breakfast, he frequently fed the little suitors, who approached as near as their iron bars would admit. "You see they all know me," said he, "and will feed from my hand, except the blackbird, who must gain his morsel by stealth before he eats it: we will retire an instant, and in our absence he will take the bread." On our return, we found he had secreted it in a corner of his cage. I mention these, otherwise uninteresting, anecdotes, to shew how much Dr. Gall had studied the peculiarities of the smaller animals.

After breakfast, he shewed me his extensive collection, which I find is purchased by an Englishman; and thus ended my first visit to the greatest moral philosopher that Europe has produced,—to a man, than whom few were ever more ridiculed, and few ever pursued their bent more determinately, despite its effects,—to a man who alone effected more change in mental philosophy than perhaps any predecessor,—to a man who suffered more persecution, and yet possessed more philanthropy, than most philosophers.

In comparing the characters of two men who, from their associated labours, are generally spoken of at the same time, we might say of Dr. Gall that he possessed the greater genius, while Dr. Spurzheim is the most acute reasoner. To the former we are indebted for the discovery of a new doctrine, to the latter for its adaptation to useful purposes. Gall astonished us by the vastness of his scheme of mental philosophy, Spurzheim by the attractions with which he adorned it. Gall possessed the genius that commands respect, and Spurzheim the amiability of disposition that ever ensures it.

## MONTHLY LIST OF MEDICAL BOOKS.

[Medical Works cannot be entered on this List except a copy be sent for the purpose; the titles of Books having frequently been transmitted to us, as published, which have not appeared for weeks, or even months, after.]

Observations on the Nature and Treatment of Cholera; and on the Pathology of Mucous Membranes. By ALEX. TURNBULL CHRISTIE, M.D.—Macfarlan and Stewart, Edinburgh, 1828.

A Manual of the Anatomy, Physiology, and Diseases of the Eye and its Appendages. By S. J. STRATFORD.—Longman, London, 1828.

An Essay on a new Mode of Treatment of Dislocated Joints, and the Non-Union of Fracture; with Cases and Formulae of the various Preparations used. By THOMAS HUCHANAN, C.M.—Longman, London, 1828.

A Manual on Midwifery, or, a Summary of the Science and Art of Obstetric Medicine: including the Anatomy, Physiology, Pathology, and Therapeutics, peculiar to Females; Treatment of Parturition, Puerperal and Infantile Diseases, &c. By MICHAEL RYAN, M.D.—Longman, London, 1828.

Observations on the Nature and Treatment of Fractures of the upper Third of the Thigh-bone, and of Fractures of long standing, &c. &c. By JOSEPH AMESBURY.—T. and G. Underwood, London, 1828.

## METEOROLOGICAL JOURNAL.

From September 20th, to October 20th, 1828.

By Messrs. HARRIS and Co. Mathematical Instrument Makers, 50, High Holborn.

September	Rain gauge.	Moon.	Thermom.			Barometer.		De Luc's Hygrom.		Winds.		Atmospheric Variations.		
			9 A.M.	MAX.	MIN.	9 A.M.	10 P.M.	9 A.M.	10 P.M.	9 A.M.	10 P.M.	9 a.m.	2 p.m.	10 p.m.
20			53	67	50	30.06	30.07	50	50	SE	SE	Fine	Fine	Fine
21			58	67	51	.02	.04	49	48	SE	SSE	—	—	—
22			58	66	49	29.75	29.84	47	49	S	W	Foggy	—	—
23		○	60	68	56	30.00	30.01	50	51	SW	SW	Foggy	Fine	—
24			61	69	59	.01	.29.97	51	52	W	WSW	Fine	—	—
25			62	68	60	29.85	.75	51	47	W	SW	—	—	—
26			65	73	56	.67	.72	51	49	SW	WNW	—	—	—
27	.68		64	72	50	.76	.71	54	53	NW	NW	Rain	Rain	Cloudy
28	.45		60	67	51	.60	.50	53	52	W	NW	Show'ry	—	Rain
29			62	65	54	.46	.43	51	55	WNW	WNW	Cloudy	Cloudy	Cloudy
30			56	62	52	.56	.57	54	54	W	W	Fine	Fine	Cloudy
Oct. 1		☾	58	66	48	.48	.57	55	54	W	W	Cloudy	Fine	Fine
2			56	61	46	.59	.51	55	54	W	NW	Fine	—	Fine
3			46	62	54	.53	.72	53	52	WNW	SW	Foggy	—	—
4	.08		60	68	54	.43	.53	52	54	SSW	W	Show'ry	Cloudy	Cloudy
5			57	64	53	.31	.27	53	53	SW	SW	Fine	—	Cloudy
6			57	60	50	.22	.41	52	54	W	WSW	Fine	Cloudy	Fine
7	.07	●	54	61	52	.52	.41	54	54	W	W	Fine	Fine	Show'ry
8			56	60	50	.41	.37	51	51	WNW	NW	Fine	Cloudy	Cloudy
9			56	60	48	.39	.56	51	54	NW	NW	Fine	Fine	Fine
10			53	60	51	30.00	.35	53	55	W	W	—	Cloudy	Cloudy
11			58	60	52	.14	20.25	56	55	WNW	WNW	—	Fine	Fine
12			56	62	60	.29	.32	54	54	W	W	Fine	—	—
13			51	60	50	.27	.21	55	52	W	NNW	Foggy	Fine	Foggy
14			52	57	52	.23	.24	54	52	NW	NNW	Fine	—	Fine
15			55	59	51	.21	.19	54	58	NNW	NNW	Fine	—	Fine
16		☾	54	63	52	.17	.13	55	54	NNW	NNW	Foggy	Cloudy	Foggy
17			56	59	43	.03	.00	54	55	NW	NNW	—	Flue	Cloudy
18			46	55	45	.19	.17	54	50	ENE	—	Fine	Fine	Fine
19			47	54	39	.04	29.99	50	52	E	E	Fine	Fine	Fine

The quantity of Rain fallen in the month of September, was 2 inches and 82.100ths.

## NOTICES.

Communications to be addressed (post paid) to the Publisher.

# THE LONDON Medical and Physical Journal.

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For many fortunate discoveries in medicine, and for the detection of numerous errors, the world is indebted to the rapid circulation of Monthly Journals; and there never existed any work, to which the Faculty, in Europe and America, were under deeper obligations, than to the *Medical and Physical Journal of London*, now forming a long, but an invaluable, series.—RUSH.

## ORIGINAL PAPERS,

AND

CASES OBTAINED FROM PUBLIC INSTITUTIONS AND OTHER  
AUTHENTIC SOURCES.

### STRICTURE OF THE SPHINCTER ANI.

*On Painful and Permanent Spasmodic Stricture of the Sphincter Ani, with or without Fissure.* By A CORRESPONDENT IN PARIS.

I PERCEIVE, in Dr. JOHNSON'S review of a Treatise on Stricture of the Rectum, the following remarks: "A *peculiar constriction of the anus* is sometimes the cause of stricture. Mr. S. has rarely found this unattended with obstruction very high up in the rectum. In females, an occasional and afflicting source of stricture is an enlarged and tender condition of the uterus, of which we have a melancholy case under our care. *Every time that a motion is produced by nature or art, the sufferings are dreadful*, and can only be allayed by the introduction of laudanum into the rectum. *In these unhappy cases, little or nothing can be done by surgery.* The only means of mitigating the pains are by emollient injections, to bring away the feces in a soft state; and afterwards throwing up an anodyne."

To say nothing of the manifestly incredible statement of Mr. Salmon, that constriction of the anus is *rarely* found without obstruction very high up in the rectum, the supposed internal disease which is thus asserted to be beyond the reach of surgery, I presume to be one which is known to continental surgeons under the title of spasmodic constriction of the sphincter, accompanied most commonly by fissure within the gut, and is *cured* by cutting freely through all the

fibres of the sphincter in one or more parts, avoiding the anterior and posterior, on account of the important organs in front of the one, and the blood-vessels of the other.

The symptoms of the patient referred to by the reviewer are supposed to arise from an "enlarged and tender condition of the uterus:" so, in cases of the spasmodic affection of the anus, women have ascribed their sufferings to ulcers of the womb; sometimes they have been treated for disease of the liver or spleen; and the cause in others has been referred to syphilis, or impetiginous affection: but all these accessory symptoms disappeared by the free incision of the sphincter.

The uterine affection, with constant desire to void urine, was strongly marked in a patient of the Hôtel Dieu at Paris, on whom I witnessed the operation. The womb was frequently prolapsed and painful; sometimes, in an erect position, she experienced pains which she described as resembling the passage of a foetus, although not equal in intensity; for, to adopt her own language, they were like a "*petit enfantement*." She had suffered from hemorrhoids, and violent pain in evacuating the feces, for many years past, and the pains in the interval were lancinating. The introduction of pledgets into the rectum was effected with great difficulty, on account of the constriction, and followed by such intense suffering, that they were necessarily abandoned. When on the operation table in the amphitheatre, the margin of the anus was seen to be completely surrounded by large hemorrhoidal tumors, in the centre of which an internal one appeared; and a fissure existed in the longitudinal direction of the gut. All the tumors were successively removed by the scissors, and an extensive incision was made in the fissure. On the following day, I found her free from pain. Within the space of a fortnight she had recovered her health and cheerfulness; although, for a considerable time past, she had been plunged in the depths of misery and distress.

It is commonly supposed that no traces either of constriction or of the peculiar fissure, are to be found in any author anterior to the time of SABATIER, who speaks of superficial and painful excoriations, narrow and long, within the margin of the anus, which are exceedingly difficult of cure, and remarkable for the pain which they excite. The rhagades and fissures described by authors as concomitants of syphilis, or the same affections noticed by LEMONIER in his *Treatise on Fistula in Ano*, published in 1689, possess none of the characteristic marks of the spasmodic constriction, and the horrible suffering resulting from a fissure which is sometimes scarcely perceptible, and often only to be discovered by the

unutterable anguish which follows the introduction of the finger. They are described as little painful ulcers, following the course of the wrinkles of the anus, resembling chaps in the legs and hands; sometimes caused by induration of fecal matter, by dysentery, or by syphilis.

M. BOYER was the first to investigate the nature of this disease, and about twenty years since discovered by accident the proper mode of cure by incision, which he asserts to have successfully employed in upwards of a hundred cases; and his practice has been adopted by the principal surgeons in the French metropolis. His primary intention was no other than to convert a callous fissure into a recent wound, but his success surpassed his expectation. The lancinating pains instantly ceased, and the constriction also. The latter result induced him to make the incision in the case of constriction alone, without fissure: he was equally fortunate. Soon afterwards, having met with patients in whom the fissure existed in the anterior or posterior parts of the rectum, where the use of the knife might be attended with inconvenient results, he determined to make his incisions laterally, taking no account of the fissure, which always disappeared spontaneously after the operation.

It can hardly be necessary to describe the mode of using the scalpel in those cases: it may be sufficient to remind the practitioner, that, as the object is dilatation, the reunion of the lips of the wound should be prevented by the introduction of pledgets into the anus.

Although the essential feature of this affection is the constriction, yet the more frequent accompaniment of the fissure has caused it to be better known by the latter title. M. Boyer gives it this denomination, expressing at the same time his firm opinion that it depends upon the constriction, inasmuch as all the symptoms are felt when the fissure is absent, and the cure of the constriction is invariably followed by that of the fissure.

The account which I believe to be the first in order of publication, appeared in the *Dictionnaire des Sciences Médicales*, eight years after the successful treatment of the early cases at the Hôpital la Charité, to which M. Boyer is the surgeon. It is, in fact, substantially the same as a later publication of this gentleman, and might be derived from the clinical lectures which, as the professor of surgery, he was in the habit of delivering at the *Ecole de Médecine* in Paris. Another account was published in the *New Dictionnaire de Médecine*, in 1824; and it is remarkable that, although some parts are

the very words of M. Boyer, yet the work of the latter appeared a year later.\*

The characteristics are stated by this gentleman to be excessive pain during the alvine evacuations. The forefinger penetrates with difficulty into the rectum, and is strongly constricted; its introduction is always followed by pain, which is intolerable if strong pressure be made on the fissure, and the patient darts forward to escape the torment which he feels. That which accompanies or follows the alvine discharge is, in general, proportioned to the size and hardness of the excrements; but, although the feces may be liquid as in diarrhoea, the suffering of the patient is still great. Even the evacuation of flatus is productive of pain, and is sometimes impossible. One of the patients was tormented with a desire to discharge flatus to such a degree as to be obliged to wear an elastic tube in the rectum, for the purpose of giving it vent. In many, the symptoms had been preceded by hemorrhoidal tumors, and the removal had not been followed by relief.

It begins insensibly. The evacuation of feces is attended with heat and smarting, which sometimes remains during many hours. Sometimes these symptoms intermit for several days, especially if heating drinks are avoided, and clysters, with frequent cold ablution, be employed. But soon the heat and smarting recurs; the discharge of feces is attended with more pain, and a longer continuance of it. Blood sometimes accompanies the feces; the pains increase. Laxatives, clysters, and cooling regimen, relieve to a certain period, but at length they lose their beneficial effect. The symptoms increase, and require the continual use of purgatives.

The consequence of constipation is a great increase of suffering, which is often compared to the introduction of a red hot iron into the rectum. Some patients are agitated by a sort of general convulsive contraction, or fall into syncope. After the evacuation, the pain is not only acute, but a shooting and pulsation is felt, like that of an inflamed part. In one patient, a slight febrile paroxysm took place after every evacuation.

The pains do not increase in a progressive manner: they intermit, and vary in intensity according to circumstances. Violent exercise, the use of wine and spirits, too much food or of a heating kind, tend to increase them. The influence of regimen is so marked, that patients often confine them-

\* *Traité des Maladies Chirurgicales, et des Operations qui leur conviennent.*

serves to the smallest quantity of food, from a fear of increasing the excrement. In many, the symptoms increase at the menstrual period. One experienced exacerbation of suffering every eighth day.

The most trifling circumstance will exasperate the pain: the act of coughing, voiding urine, or jumping, is sufficient. Some cannot stand erect, others cannot sit.

When the disease has long existed, nervous irritability and emaciation, hypochondriasis, or retention of urine, are frequently superadded to the local symptoms.

The cases treated by M. Boyer so admirably illustrate the disease, that I cannot better conclude this paper than by subjoining them, especially as I do not recollect to have seen them in an English form, and believe them to be generally unknown in Great Britain.

*Cases of Constriction of the Anus, with Fissure.*

CASE I.—Marie Aquette, twenty-six years of age, entered the hospital of la Charité, in the month of September, 1809. Two years and a half before this period, she had begun to experience pains in the rectum, which became more acute during the evacuation of fecal matter. Six months afterwards, hemorrhoids appeared, which at first were treated by leeches, and subsequently, excised. After the operation the pains increased: they were not constant, and often returned without any apparent cause; sometimes they came on after a fit of coughing or sneezing, or remaining too long either in a recumbent or sitting posture. They also increased at the time of menstruation, and especially on going to stool. Every muscle was then in contraction, and the patient, a prey to unutterable anguish, forcibly grasped every object which surrounded her. When the feces were firm they were small in quantity, commonly tinged with blood, and the pains which they occasioned in the passage was a sense of laceration: when the evacuations were liquid, the smarting was more to be endured, but still great.

Clysters produced some alleviation; but the introduction of the canula was so difficult and painful, that the patient could rarely decide to have recourse to it. The introduction of the finger into the anus (which was frequently examined by the surgeon who usually attended,) constantly produced excessive pain, especially on the right side. After the use of many remedies, a mercurial course was ineffectually tried, to which the patient submitted for nine months, notwithstanding her conviction that her disease could have no connexion with syphilis.

I introduced my finger into the rectum. I felt it strongly pressed. I discovered a fissure on the right side, which, being pressed upon, occasioned horrible pain. Three days afterwards I performed the incision of the sphincter. At the end of fifteen days the stools

were free, and without pain. She remained in the hospital two months, and was perfectly cured.

CASE II.—The patient speaks :

In the month of May, 1810, I was attacked with violent pain on going to the water closet. I was treated for hemorrhoids. Leeches were applied, and I experienced relief. The violent pains ceased, but during the whole of the summer I suffered in a trifling degree. In the month of December following, I was attacked by a paroxysm of dreadful suffering. The pains became much more violent an hour after having been at the water closet, in which state they remained for five or six consecutive hours. Recourse was then had to leeches, the symptoms being ascribed to hemorrhoids; but on this occasion they produced no effect. The sufferings returned with the same violence at each evacuation. I was then placed on a soft and cooling diet, with hip baths. I was also immersed in warm baths. I passed some days with trifling pain, but every eighth I suffered from paroxysms of increasing violence. Since the month of May last, I have not had a moment's respite. I could not go to stool without experiencing the most agonising pain: it seemed to me that something was lacerating the passage; and, for seven or eight hours after the excretion, I felt a continual pulsation and shooting in the part, with constriction and dryness, as if a red-hot iron had been introduced into it. So violent were the pains that they occasioned fever. The same cooling treatment was continued, but without success. Tents, covered with cerate and opium, were attempted: sometimes they could not be introduced, and, when they were, my sufferings were greatly increased.

M. Boyer was consulted, who ordered injections: they calmed the pain, but did not destroy the evil. He told me that the operation alone could cure me radically. I submitted to it, and in a few days afterwards I went to stool almost without suffering, and now I experience no pain.

CASE III.—A needle-woman, thirty-six years of age, felt pains in the rectum for two years past, which at length became insupportable, especially on going to stool. She entered the hospital on the 8th July, 1811. Clysters, baths, and potions were tried, without effect. The anus appeared to be in a natural state; but, when I wished to pass my finger into the rectum, I experienced a strong resistance, and it occasioned great pain. I felt, on the right side of the gut, and a little posteriorly, a fissure and a hard excrescence. The torments I caused were dreadful, on which account I abridged my research.

On the 2d of August, the patient had an injection early in the morning; as mine, I cut through each side of the sphincter. Five days afterwards, the patient voided a stool without suffering, and the largest tents now occasioned no pain.

On the 16th of September, the patient left the hospital cured.



**CASE IV.**—*Louise Richeraud*, twenty-one years of age, suffered for three months acute pains in going to stool, although clysters were administered for the purpose of facilitating the evacuation. The excrements were hard and small.

Local bleedings and suppositories had been employed without effect. The anus was strongly contracted, and cleft at the left side, a little posteriorly. I cut down on the fissure itself. During the seven first days which followed the operation, a retention of urine obliged us to have recourse to the catheter. At the end of twenty-two days, all treatment ceased, the largest penetrating into the anus without pain, and the patient went freely to stool.

**CASE V.**—A female, twenty-nine years of age, had always enjoyed good health, when a coach, in which she was travelling to Orleans, was overturned. She received no contusion, but was greatly terrified. This was followed by nervous symptoms. Soon afterwards, hemorrhoids and obstinate constipation took place. When the bowels became again open, the evacuations were daily more painful, and were accompanied by acute pain, notwithstanding the clysters, vapour baths, laxatives, and other remedies employed. Tents were also used without effect. Her medical attendant, having seen a fissure on the right side of the anus, suspected a venereal cause, and recommended the employment of mercury.

The patient in terror consulted me. She was emaciated, pale, and weak; unable to leave her house; took nothing but liquid aliment, and her rest was almost entirely destroyed. The introduction of the finger into the anus occasioned cruel pain, which was prolonged for several hours, and accompanied by piercing cries.

I made an incision through the fissure and the sphincter. During the inflammation of the wound, some pains were caused by the introduction of the tents, but they finally disappeared, to return no more.

**CASE VI.**—A female, fifty-six years of age, during convalescence from malignant fever, had an obstinate constipation for the space of two months. The feces, large as chestnuts and very hard, required the greatest effort for their expulsion, although clysters and mild laxatives were not neglected. Gradually the evacuations became more difficult, were preceded and accompanied by acute pain, which lasted many hours, and left the patient during a part of the day in a state of profound stupor. Sleep at night was often interrupted by convulsive movements. The patient, having learnt by experience how dangerous it was to pass a single day without an evacuation, had renounced all solid aliment and wine, and lived on fresh broths, potages, and milk. Many practitioners recommended the use of tents, which she could not support, however slender. A suppository of elastic gum was also useless. These means aggravated the symptoms.

After four years of torment, she came to consult me. I recog-

nised a fissure on the right side of the anus, and a spasm of the sphincter. I made the incision on the fissure itself, and soon the patient was enabled to go to stool without pain. For five years she has continued to enjoy good health.

CASE VII.—In the month of December, 1809, I was consulted by M. N., who had, on the left side of the anus anteriorly, a superficial fissure, accompanied by spasmodic constrictions; fifteen years previously he had gone to Genoa, and, after an excess in eating and drinking, he experienced constipation and difficulty of passing his urine; which long resisted the use of baths, fomentations, clysters, and bleeding. The hemorrhoidal veins swelled, with wandering pains in the limbs. Lactheas mitigated the pain, and disengaged the distended vessels; but the pains soon became permanent, especially on evacuating the bowels, however soft the excreted matter.

Several practitioners counselled the strictest regimen, purging, drinks, and tents; but all was ineffectual. When I operated, the coarctation of the anus was very great; the evacuations extremely painful. The incision was made on the fissure itself, was followed by no untoward symptoms, and the result was most satisfactory.

CASE VIII.—M. P——, of Chartres, aged forty-one years, had a fissure of the anus, with spasmodic stricture of the sphincter. Too much debilitated, when I operated, to give me all the particulars that I desired, the following were sent to me in writing several months after he was cured:

From the age of eighteen years I had hemorrhoids; my fundament has always been narrow, and the evacuation of feces difficult. In 1806, I had a severe illness. My hemorrhoids became very painful: one of them appeared at the exterior of the anus. Bleedings did not calm me. I experienced, in going to the water-closet, the most acute pain. In the efforts which I was compelled to make, a laceration to the extent of six lines was formed in the anus. Since this period the evil has always been on the increase. I passed seventeen days without sleeping. I lived on chicken broth, grapes and pears, to avoid increasing the excrement. At the end of a month my pains abated; but the orifice of the anus was scarcely large enough to receive the end of a capula. Towards the end of 1808, I went to Paris, for the purpose of consulting Mr. ———. My countenance was jaundiced, and liver affected. He prescribed an aperient drink and the application of twenty leeches. The anus was at that time almost free from pain; but, in the spring of 1809, the pains recurred with more force. I returned to Paris, to consult the same surgeon. He examined the anus, and ordered tents, which I did not apply. I consulted another, who prescribed laxatives and “douches ascendantes.” I employed the latter, but the second application caused such acute pain that I could not support it. I then had recourse to you, sir, and the following is a copy of your written answer.

"There exists on the left part of the margin of the anus an hemorrhoidal excrescence, divided into two parts. Between the two portions is a fissure, which extends into the anus for the space of about six lines. The pain which the patient experiences at the time of going to stool, and afterwards, depends solely on the fissure and on the spasmodic constriction of the sphincter. I have frequently observed this malady, and I have discovered no other means of curing it than by making an incision, thereby converting the fissure into a simple wound, which destroys the constriction of the sphincter, and enables it readily to yield to the passage of the excrement."

I showed this opinion to M. PINEL, who was entirely of your advice. You know what I experienced at the time of the operation. My health at this moment is good. I have no pain in the anus; no difficulty in going to stool; no hemorrhoids; a little heat only when I have taken too much exercise: I then take a clyster, and all disappears. I frequently hunt; I am free from ennui, and my health was never better.

#### *Cases of Constriction, without Fissure.*

CASE IX.—Madame de ——— from her childhood complained of extreme difficulty in the expulsion of feces. Ascribing this phenomenon to a heated temperament, her parents paid little attention to it, administering occasional clysters, and thus several years passed away. Between the ages of fifteen and sixteen, Madame de ——— could not evacuate the bowels without the aid of injections; and even then the discharge was accompanied and followed by great pain.

A feeling of laceration and pricking caused a suspicion of hemorrhoids. The pains, which at first were supportable and of slight duration, became gradually more acute, and continued fifteen or sixteen hours after every evacuation.

All the physicians and surgeons of the country where Madame de ——— then resided were consulted; those of Havre and Rouen also. One of them introduced, for the space of three months, pledgets of lint covered with cerate.

At length the increasing sufferings of the patient brought her to Paris. She consulted DESAULT, VICQ D'AZYR, SABATIER, PORTAL, and CHOSSART. The latter employed tents for several months. The pains became agonising, and the anus constricted to such a degree as no longer to admit the pipe of a syringe. She then had recourse to purgatives every other day; but this produced extreme emaciation and increased pain during the evacuation.

Worn out by the treatment, and losing all hope of being cured, in consequence of an indiscreet assertion of Desault that she would die if she could not bear the tents, she renounced the succour of medicine for the space of four years. At the solicitations, however, of her friends, she at length consented to have recour

to me. I made two lateral incisions on the sphincter of the anus, and kept the lips of the wound apart by tents. (The cicatrization was prompt, and the evacuations became easy. The pains entirely ceased, and the patient recovered her spirits and a healthy appearance.

**CASE XI.**—*Laurent Cistern* experienced, at the age of thirty-two years, after long constipation, acute pains in the anus, which efforts to go to stool rendered agonising. From this moment the alvine evacuations could not be passed without inexpressible anguish, which continued for four or five hours. When he was up or in bed he suffered little, but when seated the pains were more acute; on which account he quitted the trade of a shoemaker. During thirty months laxatives were the only remedies which produced relief.

On the 26th of November, 1809, he entered the *Hôpital la Charité*. I discovered, at the right side of the inner part of the anus, a hard, thick, and painful callous point. This point was the principal seat of the pain which was experienced on going to stool. The sphincter contracted strongly on my finger, especially when I pressed upon this hard point. I put the patient on low diet, and prescribed the use of diluents and a gentle purgative. On the following day a clyster was administered; and, on the third, I cut the sphincter through the hard, thickened, and painful point of which I have spoken. The wound slowly cicatrised. During some time the fecal matters occasioned obscure pains in passing over the wound, and afterwards over the cicatrix. But the pains ceased, and many months after his exit from the hospital he came to see us, and was perfectly cured.

*Case of Constriction, where the existence of Fissure was doubtful.*

**CASE XI.**—*Alexis Cuby*, fifty-two years of age, has experienced, for two years and a half past, pains in going to stool. These, which were slight and only felt at intervals at the commencement, became so acute that the patient compared them to a red-hot iron introduced into the rectum. The use of injections prepared with narcotic substances procured but transitory relief. All other remedies were equally unsuccessful.

When he consulted me, I told him that an operation alone would put an end to his sufferings. The anus was so contracted that my finger penetrated with difficulty, and caused intense pain. Towards the left side, where the most acute pain was experienced, I thought I felt a fissure. I cut the sphincter at this part, and applied tents for the space of forty-one days: during the latter month of this period he went to stool without experiencing the smallest pain.

M. Boyer says that he has never seen the disease in children or adolescents: it may therefore be important to add the

case of an infant, which occurred in his own hospital. It is reported in the *Dictionnaire des Sciences Medicales*.

CASE XII.—A child, three or four days old, was brought to the Hôpital la Charité by its nurse, from whom we learnt that it had voided no excrement. The belly was tense and painful; and the child cried continually. The next day, on examination, was found to be extremely constricted, so that a probe could scarcely be passed into it. The sphincter was divided in the direction of the os coccygis. Meconium and feces came away immediately in abundance, which so relieved the child that it ceased to cry, and was perfectly cured.

#### RESECTION OF THE RIBS.

*Successful Cases of Resection of the Ribs.* By M. CITTADINI.

AMONG the operations which have enriched modern surgery, is the resection of the ribs, first made known to the practitioners of Great Britain by one, which was unsuccessful, performed by RICHERAND, although the same had been previously crowned with success by CITTADINI. From the following narratives, taken from the *Annali Universali di Medicina*, it will be found to be unattended with the danger usually anticipated. Hemorrhagy from the intercostal artery may be easily suppressed near the sternum, and the ligature is only required when the middle and posterior parts of the rib are removed.

The first of the following cases was published in the *Journal Complementary des Sciences Medicales*, in the year 1820, two years after the case of Richerand, although it was performed in 1818. It has been deemed advisable to reproduce it in this place, for the purpose of presenting the whole body of evidence in one focus.

CASE I.—A woman had fistulous ulcers in the left breast, of long standing. Caustics and repeated incisions were employed, without effect. The sternum and cartilages of the sixth and seventh ribs were found, by the introduction of a probe, to be carious, which, on laying bare the parts by incisions, was seen to be upwards of an inch in length; and the cartilages were swollen and perforated in many places for the space of three inches. The actual cautery was employed to promote exfoliation of the bone, without effect, and excited inflammation of the pleura.

Six months afterwards, the pus made its way into the chest, causing continual pain, great difficulty of breathing, and great emaciation.

The resection of the ribs being resolved upon, all the diseased surface of the bone was laid bare, when an opening into the cavity of the thorax was found between the sixth and seventh ribs. The intercostal muscles were divided; their arteries tied by means of

a blunt needle, and the two diseased ribs were cut through on the inside of the ligatures. A large trepan was applied on the sternum, so as to include the diseased portion, which was finally separated from the subjacent pleura by means of a spatula. The proximity of the internal mammary artery prevented the removal of this membrane, although its unhealthy condition seemed to indicate the necessity of it.

The introduction of air through the wound into the thorax, produced great fear of suffocation, but the wound was promptly covered by lint spread with cerate. Stimulants, frictions, and insufflations of air into the lungs were required to revive the patient, whose life was nearly extinct.

During the two succeeding months, the difficulty of breathing was very great; but, as soon as the wound was cicatrised, the symptoms disappeared, and the patient was restored to perfect health.

CASE II.—The cure of a fungous tumor seated on the cartilages of the sixth, seventh, and eighth ribs, near the xiphoid cartilage, had been often ineffectually tried, by caustery and the knife, when Mr. CERRANT, thinking it to be rooted in the rib, removed the whole of the ligaments around the tumor. He cut through some fibres of the rectus and obliquus, so as to expose the whole of the cartilages, and discovered that the diseased parts occupied a space whose diameter was about two inches. The cartilages were then cut through by a strong bistoury; the diseased portion was raised by a spatula, when it was discovered that it strongly adhered by its internal surface to a fungous mass within, whose laceration occasioned an abundant hemorrhagy. The flow of blood was arrested by the actual cautery, and the cicatrization was completed at the end of three weeks, without any unfavorable symptom.

CASE III.—The cartilages of the sixth rib and part of the bone were carious, at the bottom of a fistulous opening in the integuments. The latter were dissected off, and the diseased portion of the cartilage and bone was about an inch and a half long. The cartilage was cut through by the bistoury, and the bone divided by cutting pincers. The principal arteries were tied, the smaller compressed, and the excised portion was removed with the usual precautions; the pleura having been opened during the operation in several places. The respiration was at first short and laborious, but at the expiration of some hours returned to its natural state.

The wound was cicatrised at the end of two months, and the patient perfectly cured, without having experienced any symptom of affection in the chest.

CASE IV.—After violent pleurisy, a tumor, which was hard and painful on pressure, appeared near the sternal articulation of the sixth rib. It slowly suppurated and opened externally, leaving a

catulour ulceration. The diseased bone was exposed and removed. The subjacent and thickened pleura was cut in several places. An abundant hemorrhage flowed from the divided intercostals which nevertheless was stopped by compression. The cure in this case was not completed for six months.

CASE V.—A fistulous sinus terminated in a carious point in the upper edge of the third rib, arising from a blow. The lower part of the bone, being sound, was preserved; and the patient was cured in two months.

#### THE CHERRATTAH.

To the Editors of the London Medical and Physical Journal.

SIRS,—It has long been a matter of surprise to me that the herb Cherrattah, which has been held, from time immemorial, in great estimation by the natives of Bengal and the European residents, especially the medical officers, as a very efficacious deobstruent and stomachic medicine, should not have been introduced into the practice of this country; especially as the variety of dyspepsia for which it is considered a specific, (accompanied with, and probably dependent on, sluggish or overloaded state of the liver,) is as prevalent in this country as in the East Indies.

It is said that the effects of the cherrattah are not, like stomachics in general, confined to the stomach, but extended to the abdominal viscera, particularly the liver, which it deterges, or (as Dr. CURRIE observes) emulges; and this I believe to be the case; for I have observed the feces, during its use, to be well charged with bile, and the complexion to become clear. Although not aperient, it evidently prevents an accumulation of feces of the lower portion of the intestinal canal, which, as a late writer observes, is a common cause of disorders of the stomach and head, and at the same time promotes digestion.

The medicinal virtues of the herb are imparted to boiling water, and the infusion, when properly made, is a very grateful bitter; but the natives prefer the decoction made by gently boiling half an ounce of the cut dried herb in a pint of water for about fifteen or twenty minutes. Of this decoction they take a small wine-glassful two or three times a day. The extract, which also contains the virtues of the herb in great perfection, is taken in the form of pills.

It is likewise given by the Indian practitioners in cases of pulmonary consumption and scrofula; but of its effects in the former malady I cannot speak from experience. In the latter malady I have frequently witnessed its salutary operation.

Dr. FLEMING speaks highly of the cherrattah as a tonic

medicine. Dr. James Johnson, in his *work on Tropical Diseases*, also gives it a high character; and Mr. Abbotson, in his *Treatise on the Malvern Water*, says that, from the very beneficial effects it had on himself, he looks upon it as a valuable addition to the class of stomachic medicines.

I am, gentlemen, Sir, your obedient servant,

THOMAS BAKER,

Stanford-street, Blackfriars; October 1822.

I have enclosed a small quantity of the herb, and of the extract of it made from a cold infusion.

#### REUNION OF FRACTURED BONES.

*Observations on the Reunion of Fractured Bones; with Cases illustrating the Utility of Pressure in the Treatment of Ununited Fracture.* By THOMAS H. WRIGHT, M.D.

It is not the purpose of the present communication to investigate particularly the causes, which obstruct or defeat the efforts of the constitution to restore the unity of fractured bones. Those causes are various, and perhaps are generally understood, though few attempts seem to have been made to elucidate their nature, or point out their mode of influence. The main impediment to the process in question has been referred, in general terms, to debility, or a certain defect of power, either of the whole system or of the part, to set up and maintain the proper actions. This state of disability may be the effect of causes which, either by their intensity or continuance, may depress the powers of the system below the point necessary to the repair of great local injuries; or some specific causes, affecting the power of the constitution to preserve or restore its integrity of structure, are supposed to display their character and effect chiefly in suspending or vitiating the action of ossification. Among the latter are ranked the severer forms of scrofula, syphilis, scarvy, &c.

Whatever may be the effect of general or special causes on the constitution in interrupting or altering the actions of nutrition, and particularly of the nutrient office of the arteries of bones, it seems probable, that the state of ununited fracture, as it is commonly found, is often the result of circumstances independent of any remarkable general or specific disability of the whole system. Such a consequence is, perhaps, usually induced by causes whose operation or effect is confined very much, if not altogether, to the point of injury.



It is to look for circumstances, either arising out of the character of the lesion, or casually interfering with the design and efforts of the constitution to repair the injury, that we are to look for the ordinary causes of ununited fracture. To the first class belong bad forms of compound or complicated fracture, in which there arises a necessity for extensive exfoliations, attended by inflammation, and perhaps repeated and profuse suppuration, before the bones can be brought into a state to undertake the work of permanent reunion. Here the energies of the parts become subdued by their being kept so long in a state of irritation, and forced into the performance of actions alien to restoration.

Another class of causes which tend to frustrate the design of nature in the repair of fractures, and the operation of which seems to be purely local, are all the circumstances which prevent such relation and repose of the parts as are essential to the perfection of the work to be performed. A certain correspondence of surfaces, and concert of action between the fractured extremities, are indispensable to firm union; and whatever tends to obstruct, either constantly or frequently, the state of contact and rest, will commonly hinder, in part or altogether, the act of reunion. Hence imperfect reduction or apposition of fractures, errors of position, improper or inefficient means of support, frequent or causeless movement of the parts, unrestrained mobility of the patient, inattention to the state and effect of the supporting means, the too early removal of the necessary defence by splints and bandage, and, lastly, premature or untimely attempts to bring the parts into action and use; all these, and more of a similar tendency, are calculated to disturb, and at last to defeat a process which can only be perfected when wholly untroubled from such interruptions.

I readily assent to the general propriety with which the advanced and declining epochs of life may be considered as unpropitious to the active functions of growth, nourishment, and renovation of parts; yet I have been frequently struck with the resources of the system in old age, as displayed in the prompt and perfect repair of injuries both of the soft and solid parts of the body. In the closing of wounds, the filling up and healing of extensive ulcers, and the firm reunion of fracture, it has occurred to me to observe all those processes accomplished with a facility and completeness scarcely exceeded at any age, in some instances where the subjects of such accidents had passed the eightieth year of life.

Ossification, or calcareous conversion of the vascular tunics, though a common occurrence at that period, is not the

invariable concomitant of senescence; and, though seldom occurring before middle age is past, does not correspond either in origin or degree, to the relative advance in life of the individuals in whom such change may exist. It is found to have occurred in some persons at forty or fifty, in others at sixty or eighty years, and is sometimes present in a greater degree, or more manifestly, at the former than at the latter age. From all the means of judging which a few examples afford, I am inclined to the opinion that some degree of ossific degeneration of the vessels of the extremities would not invariably or necessarily involve a failure of bony union, should fracture occur to limbs thus circumstanced. It has been my duty to attend to more than one case of fracture of the leg in individuals exhibiting distinctly free calcareous conversion of the tunica of the arteries of both the upper and lower extremities, where they were accessible to examination. Those cases presented ultimate apparent\* consolidation of the fracture, though the process of bony union was sometime doubtful and of tardy accomplishment, requiring unusual confinement, and more than common attention to the sustaining and intimate relation of parts. Possibly in these cases where bony union obtains in fractures, notwithstanding a calcareous state of the vessels of the limb, the nutrient arteries of the bones may not be affected by the change which the capillary series of the surrounding soft parts have undergone.

The following cases are reported to illustrate a principle in the treatment of ununited fracture, which the untoward and embarrassing circumstances of the first case suggested; as offering the best promise of averting the great evil of permanent disability from such an accident. At the time this case was under treatment, I had met with no account of the similar intention, first acted upon, it would seem, by Mr. AMESBURY, and since practised in one instance by Mr. BROWN, and possibly by others. I allude to *pressure*, applied with the design of maintaining ununited fractured surfaces in a state of more strict and continued apposition and contact than had been accomplished or attempted by the means usually employed.

In the excellent Treatise on Fractures and Dislocations presented to the profession by Sir ASTLEY COOPER, the subject of pressure in fractures of tardy union is briefly

\* I use the term apparent, because the absence of obvious or sensible motion at the point of former fracture is not absolute proof of bony consolidation. The point of fracture is sometimes so braced by ligamentous connexion that no ordinary force will cause obvious movement in the part.

noticed; though it seems to have been resorted to chiefly with the design of maintaining apposition in cases where, from the nature and seat of the injury, there was particular tendency to separation of the fractured surfaces.\* The work of Sir A. did not come into my hands until some time after the termination of the first case reported, in which the expedient of pressure was suggested by the necessities of that case, and successfully employed.

Cases of false articulation, as they were formerly termed; have long been subjects of interest and embarrassment to surgeons, and were for the most part unmanageable by the resources of art employed for their correction. It was early discovered that the cause of the defect consisted in a failure of the ossific process, and the substitution of a species of ligamento-cartilaginous matter, by which the fractured ends of the bone were covered, and separately rounded, so as to permit them to glide or move freely upon each other. The obvious indication suggested by this state of parts in ununited fracture was to excite a new action in the fractured extremities, by which the natural bond of union might be produced. Hence we find the first attempts to correct false joints were regulated by the intention of creating a state of inflammation in the ends of the bone, thus stimulating them to throw out the matter necessary to their consolidation. The earliest mean by which the design was attempted to be accomplished was friction of the points of fracture upon each other, as frequently and forcibly as was deemed necessary to insure a new state and new action in the parts. This method was said to have sometimes succeeded in establishing solid union; but the plan seems to have been loosely conducted, was soon in a great degree laid aside, and perhaps never effected what was intended. One prominent defect of the scheme was, that no means appear to have been adopted to maintain such apposition of parts subsequent to the frictions, as was necessary to facilitate reunion.

A bolder scheme of treatment in ununited fracture succeeded. It consisted in cutting down to the false articulation, and sawing off the smooth extremities of the bone, thus reducing the parts as nearly as possible to the state in which they had been at the first moment of injury, and treating the case *de novo* as a compound fracture. This plan has been often tried, with various success, and enjoyed great credit. The French surgeons (BOYER and others) say it is an expedient

\* See Case of Fracture near the Condyles of the Femur, reported by Mr. WELLBANK, page 180.

seldom fortunate, and practicable only on limbs with single bones, the femur and humerus. The English surgeons (WHITE, WARDROP, &c.) speak confidently in commendation of this adventurous experiment, and of its successful application to double as well as single bones. The plan in question has certainly been sometimes effectual, but the serious degree of both local and constitutional irritation, which has often ensued in this operation, is justly considered a formidable objection to its employment, and it is now seldom practised.

An important improvement on the plan of treating ununited fracture first practised, was suggested and brought into use about the year 1804, by Mr. WHITE, of Manchester. Acting on the intention originally consulted, he at the same time placed the parts under circumstances favorable to the end proposed, and thus remedied the defect which had almost always frustrated the design under the first method of treatment. Mr. White applied to the limb in which a false joint existed (the thigh, for example,) a strong case, made of sole or saddle leather, lined with a soft material, and adapted to the length and figure of the limb. The case extended from the great trochanter, ileum, and ramus of the pubis, to the patella and condyles, was made to embrace the thigh as closely as possible, and buckled firmly on by straps, so as to prevent the ends of bone at the false joint from sliding out of their proper and direct apposition to each other. The case was worn constantly for the necessary period, was kept firmly braced by the straps, and the patient directed to walk about, and use the limb as much as possible. Drs. INGLIS and BROWN report cases of false articulation treated in the Royal Infirmary of Edinburgh on the plan of Mr. White, with complete success. Examples are related of patients in the Infirmary with ununited fracture of the thigh, upon whom the case was applied, the patient sent into the country, with the proper directions for the management of the apparatus, and his returning in a month or two afterwards, walking well and firmly, and bringing the case in his hand to restore it to the institution. The period of time for which it was found necessary to maintain strict support by the case and straps, varied from five weeks to two or three months.

It is evident that the design and management by the case and straps, with free motion of the limb, as just described, differs somewhat from that by pressure, with rest, or what may be termed still-pressure. In the one case, the direct gravitation of the body upon the false articulation seems calculated to induce a high degree of irritation upon the

antagonising points of bone, while the very free use of the member in locomotion must cause a constant, though limited, range of friction between the relative surfaces. Such a state of things, namely, great pressure and constant play of parts, would appear likely to produce bad consequences in one of two ways, either by inducing excessive local and constitutional irritation, or, on the other hand, by accustoming the parts to forcible contact and free movement, to confirm the state of insensibility and indolence of action which had caused the original failure of union. But adversary hypothesis must be silent in the presence of facts. We are told, on good authority, that the plan has been often and completely successful. By the process of pressure with rest of parts, nothing more is designed than first to promote absorption of the foreign covering of the fractured points, and thus attaining and preserving an intimate and uniform approximation of bony surfaces. If this can be attained, the system and the laws of the part will generally accomplish the rest. Without speculation on the why or wherefore of such actions, we know that if the divided surfaces of bone can be brought and maintained in a state of closeness, without the intervention of any substance foreign to their own constitution, they possess, and will exert, a natural tendency to unite by bone; or, what is the same thing, actions of formation take place under such circumstances, which actions, when perfected, result in a solid homogeneous texture of parts.

CASE I.—A master carpenter, ascending to the roof of a house, (October 1826,) slipped from the ladder when near the top, and fell about twenty feet to a scaffold raised a small height above the pavement. He dropped to the scaffold so that the momentum of the body and the force of concussion was sustained chiefly on the right limb, which was fractured just above the ankle. The fracture was a very bad one, traversing the tibia obliquely for some inches, and rendered compound and complicated by fracture of the fibula also, and the penetration of the superior fragment of the tibia through a ragged wound of the integuments, two inches in extent. The patient was seen in a few minutes by a physician of knowledge and experience, by whom the parts were promptly adjusted in the best possible manner. After the patient had been conveyed home, the interest and alarm of some of his friends induced them to urge calling myself also to the case. I accordingly saw the patient in concert with the gentleman who attended in the first instance.

On examining the injury, the fractured points were found fairly together, and requiring no interference; but hemorrhage from the wound was considerable, and, after fruitless attempts to restrain it effectually by compression, it became necessary to seek out and

the one or two (the internal malleolar) arteries. Even then troublesome oozing continued, and as the stream was found flowing from deep in the fissure of the bone, it could only be controlled by putting down on the bleeding point a compress of sponge, which, being pressed in firmly by a probe, put a stop to the bleeding. Compression in this manner was rendered easy in consequence of some vacant space caused by the removal of several pieces of bone which had been found lying loose in the course of the fracture.

The injured limb was extended on a firm surface, and well supported by broad splints on each side, braced above the knee, and reaching some inches below the foot, where the ends of the splints were locked at the proper distance by a transverse bar received into corresponding mortices, and the leg well cushioned within the splints by soft pads made for the purpose. The wound was lightly dressed, and no bandage thrown immediately around the limb. From the lacerated state of the integuments, some comminution of the bones, and the great obliquity of the fracture rendering the point of the upper fragment of the tibia extremely thin, sharp, and probably destitute of sufficient connexions for its support, it was to be expected that high inflammation, and some exfoliation, were likely to ensue. The limb was therefore left without close dressing, to avoid irritation, and that it might be conveniently accessible for such local application as might be deemed necessary, in correspondence with the general treatment, to avert or limit the consequences to be apprehended.

In the course of the second day from the accident, great constitutional disturbance, with irritative fever, set in, and wore for a short time a menacing aspect. Timely bleeding and purging, followed by a full anodyne impression, allayed the tumult, and brought about a calm and comfortable state.

On the fourth day the wound was examined, the sponge compress removed, and a light dressing applied. The leg was not sensibly affected by swelling or inflammation, and it continued free from any unpleasant state for two weeks from the time of the accident, the wound suppurating well, and the patient's health as sound as usual. At the end of that period a change for the worse occurred. The wound, which had contracted a good deal, became gleety, the integuments tumid and dark coloured; the limb swollen, hot, and painful; the patient was at the same time affected by chills and flushing. This state of things ended in abscess, re-opening of the wound, and exfoliation from the point of the upper fragment. It is unnecessary to encumber the narrative with a minute account of the treatment pursued. The antiphlogistic and soothing plan, general and local, were steadily enforced, as far as circumstances indicated.

After this interruption, circumstances again wore a favorable aspect, and by the 28th of November (six weeks after the accident,) the limb had lost all remains of inflammation and swelling;

the wound was almost closed, a good deal of apparent firmness about the fracture, and there seemed every probability of perfect consolidation. This pleasing expectation was speedily disappointed. Inflammation and tumefaction again took place, followed by suppuration, and more pieces of bone were found detached, and taken away. During this second painful process of suppuration and exfoliation, the limb lost all that was previously accomplished toward reunion; and now, at the end of eight weeks, the parts could not be regarded as more advanced towards recovery than on the first day of the injury. The fractured ends of the tibia moved free and loose, and an open wound of some extent communicated with the chasm or fissure between the fractured points.

The consequences of this second suppurating and exfoliating action gradually passed off, and again there seemed an almost successful effort on the part of the constitution to restore the entireness of both the solid and soft parts. The wound closed in, the bone became comparatively firm, and the limb recovered nearly its natural appearance.

Such continued the state of the parts for about two weeks succeeding the last occurrence of suppuration, &c.; in all, ten weeks from the date of fracture. Then ensued a condition of parts more inauspicious than ever. Inflammatory oedema supervened, the whole limb swelled to great bulk, vesications formed every where on the surface, and the characters of oedematose and vesicular erysipelas were displayed over the limb in almost their worst form. This new and threatening state of things called for very great care, to prevent consequences serious alike to the part and to the system. Mild fomentations diligently maintained, strict repose of the parts, and soothing general means, aided by a constitution naturally excellent, and never abused, fortunately led on to the least hurtful termination which circumstances admitted. Free suppuration took place in the limb, the matter was discharged by incision, and the local and constitutional irritation gradually subsided. No exfoliation followed this greater than either the preceding suppurations, but there had now arrived a crisis truly discouraging. The whole business of repair was to be commenced anew for the third time. Every mark of bony union had disappeared under the high inflammation, great tumefaction, and suppuration, which severely tried the life and organization of the whole limb. The new formations, being least able to bear the change, had all given way; and, when the tension of the parts relaxed, the bones were found lying without connexion, the lower fragment, with the foot attached, yielding in any direction to the slightest impulse, and requiring the most careful support to prevent the foot from declining, by its own weight, very much out of the proper axis of the limb.

Nearly three months had passed since the date of the fracture, and nothing effectual had been done toward the important end of

repairing the broken bone.\* But there was still room to hope for ultimate success. The patient's constitutional powers remained firm in a great degree under so many depressing and disturbing causes. Though affected considerably during the acute periods of inflammation and suppuration in the limb, his system rallied promptly and fully when these states passed by. Strict repose of the part was still enforced, the limb kept in position, sustained by external splints and an interior padding, adapted to all the curvatures of the leg. By perseverance in these measures, the limb put on a state of great improvement, the natural figure and size was regained, and the tendency to inflammation seemed to be entirely lost. In three weeks after the last-mentioned suppuration, (fourteen from the accident,) the wound of the integuments was healed, and the whole exterior of the limb looked in every respect well.

The splints were now removed, to ascertain by a cautious examination the state of the bone in the line of fracture. We had then the mortification to discover a total failure in the main object of all our care. There existed a manifest disjunction of the tibia throughout the whole extent of fracture; and so complete was the disunion, that, when the leg rested on the hands above the point of fracture, the foot dropped away from the upper fragment, causing the point of the latter to project one-fourth of an inch above the level of the portion of the tibia attached to the foot. By the gravitation of the foot and inferior fragment, the line of the fissure was also made to open so sensibly that the point of the finger could be insinuated in some degree between the sides of the fracture, carrying the integument before it into the chasm. Rotation of the foot likewise caused an obvious play of alternate opening and closing in the line of separation.

Not wholly discouraged by this unpromising state, it was determined to persevere in such measures as seemed suited to promote final union. A close bandage, hitherto inapplicable from tenderness and proclivity to inflammation, was applied moderately tight, to give more direct support above the fracture, and the external splints continued. Under this treatment the limb remained free from inflammation, swelling, or pain; the wound of the soft parts was firmly repaired; and the colour, shape, and feeling of the limb the same as before the accident. But raising the leg from the splints, or rotating the limb by the foot, it was evident that the tibia was totally discontinuous at the point of fracture. The fractured surfaces could be brought together, and made to move liberally on each other; but there was no longer any sensible crepitation. The inequalities proper to fracture were filled in, and smoothed over, by that fibrous deposit which comes at last to constitute the covering of fractured surfaces that have missed the

\* This remark applies to the tibia. The fibula had united early, and did not afterwards give way.



bony reunion. The prospect of ultimate consolidation by the energies of the constitution, and the common mode of local management was utterly extinguished in the present case, by the state of the limb as just represented.

While anxiously looking for some resort calculated to avert from a worthy man, with a large family, the terrible evil of permanent lameness, it occurred to us that we might, and in pressure, steadily maintained, the mean best suited to the indication in the present case. It was plain that mere apposition was not sufficient, under the peculiar circumstances of the case, to induce consolidation. The parts had been kept in a state of approximation and repose for four weeks succeeding the last suppuration, yet no bony union resulted. Something more than mere propinquity and rest of parts was now required. It had become necessary to cause absorption of the substance formed on the ends of the fracture, and at the same time to excite on those surfaces new attempts to the deposition of bone. Pressure presented the best promise of effecting those objects; and, to be efficient, it was evident that it must be as strict as the health of the soft parts would permit, and continued without remission for a sufficient time.

The simple, efficient, and surgical mode of making pressure by the tourniquet, since successfully practised by Mr. Brodie, did not occur to me. A strong, soft, double napkin was passed under the leg, extending from below the ankle to the head of the tibia; pad compresses of suitable size were laid, which, when braced by the general bandage, acted as counter-wedges on the line of fracture. The bandage or napkin first laid was drawn firmly around the limb, and conjoined at short spaces, at first by large pins, and afterwards by tacks. It was thus made to give uniform support and a regulated pressure through the compresses on the line of fracture, and to adapt itself closely to the contour of the whole limb from below the ankle, sustaining the inferior fragment to the top of the leg. The principle, in short, was that of the laced stocking, modified to act especially on a definite point and space. The compressing bandage was inspected, and generally tightened, twice a day, and always drawn as firmly as the patient's feelings would allow. The limb was kept extended and in splints, to maintain steadiness, and preserve the correct axis of the foot on the leg.

The favorable tendency of this treatment soon became manifest. In ten days the chasm or interval of the edges of the bone along the line of fracture was much diminished, the bones having sensibly approximated by absorption of the interposed deposit. After three weeks the depression which had always marked the line of fracture, and extent of separation, was obliterated to the touch, and the ends of bone seemed in close contact. Now, too, the tendency to eversion of the foot was lost, and moderate lateral pressure on the foot did not cause any parting at the fissure.

A further particular detail is unnecessary: perseverance in the

course described produced, at the end of five weeks from its adoption, unequivocal bony union. At that period the patient could elevate the whole limb; flex, extend, and rotate the foot freely, without the slightest evidence of motion in the line of fracture. The splints were thrown off, but the compressing bandage directed to be worn less firmly applied for some weeks, and the patient admonished to avoid for the present throwing the weight of the body on the affected limb.

The cure in this case became perfect, and when the limb was enough recovered to take its share of weight and motion, it was found to have shortened less than one-fourth of an inch. The man walks now without halting, and as firmly and well on one limb as the other. This patient was confined to bed nineteen weeks and two days; and it was six months from the accident before the consolidation was sufficient to permit use of the limb in walking.

**CASE II.**—In August 1827, a man, aged sixty-one years, designing to elope from Baltimore Almshouse, to get liquor, jumped or dropped from a wall twelve feet high. He alighted on his feet, but immediately fell, and was unable to rise again, so as to stand or walk. He was soon discovered, and brought into the surgical ward, when, on examination, the left leg was found broken, both bones, near the articulation with the foot. The fracture of the tibia was very oblique and almost compound, the integument being partially cut through by the projecting upper fragment.

The bones were adjusted, the limb moderately extended and laid in a fracture-box well cushioned, but was left without close bandage, to admit the free use of applications designed to allay inflammation and swelling, which had commenced, and were likely to be severe. Very great intumescence followed, with diffused inflammation, pain, &c., and it was nearly a fortnight before these were reduced sufficiently to allow close dressing. The limb was then braced around by an eighteen-tailed bandage, and sustained in position by the leg-splints of Sir A. Cooper, formed with the lateral supports for the foot. The patient's constitution stood the shock without disturbance, and every thing went on apparently well for five weeks, the bandage and splints being adjusted as occasion required. At the end of that period the splints and bandage were removed, to examine the state of the fracture. The fibula was found consolidated, but there was free motion at the line of fracture through the tibia. No crepitation could be distinguished, though the fractured surfaces were made to glide on each other with considerable force. The eighteen-tailed bandage was again wrapped closely about the leg, the limb placed in position, and the splints reapplied. This plan was continued three weeks longer, (eight weeks entire,) when the fracture of the tibia was found still ununited.

The case was altogether unpromising. The patient was above

sixty years of age, and, although shewing the remains of a generally good constitution, was, in many respects, a bad subject, for fracture. Previous to the accident, the leg was in a state of chronic enlargement, from infiltration and thickening of the cellular tissue. On the leg not fractured there existed a large ulcer, of some years duration, which could not, by the utmost attention, be brought to cicatrise. Superadded to these evidences of diminished power of natural action in the lower limbs, this patient shewed, in all the tangible arteries of the extremities, an advanced degree of calcareous transformation. An indurated and knotty state of the tunics was distinctly traceable in all the superficial trunks; and it is then always probable that similar degeneration obtains in the ultimate vascular series of nutrition.

It was determined to try strict and continued pressure. With this intention, a roller was laid regularly from the toes to the knee. Over this was applied short splints, made of binder's boards, cut to suit the outline of the limb, then macerated, that they might be made to adapt themselves intimately to the surface about the fracture. These splints were laid, while pliable from wetness, on opposite sides of the fracture, and braced in their place, as firmly as could be borne, by a second roller, carried from the ankle to the top of the leg. Two lateral splints of the same material, not macerated, were next applied, and secured at intervals by a few turns of a roller. These splints were sufficiently long to steady the leg and prevent motion of the foot; the wood splints first used were laid aside, and the patient confined to bed, with the limb extended. An occasional change from the recumbent to the sitting posture was allowed the patient; but he was altogether prohibited from getting out of bed, or bringing the limb into use.

An evident change in the relation and aspect of the parts was observed in a fortnight after this course was instituted. When the plan of compression was adopted, the superior fragment of the tibia projected so sensibly at the point of separation as to cause much deformity by its remarkable prominence. At the end of two weeks this projection was much reduced, and by the fourth week the bone had regained its natural level: doubtless by the influence of pressure on the deposited matter, which had occupied the interval between the fractured surfaces. The facility and range of motion at the fracture were also lessened, though still discoverable. The pressure, together with confinement to position, were steadily maintained for six weeks. The long splints were then taken off, and the patient permitted to put the limb to the floor, and supported by crutches, to bring it cautiously into use. The roller and close splints were kept on some time longer.

When the point of fracture was examined some weeks after the patient began to use the limb, the part appeared very firm. No pressure, which it was thought proper or necessary to employ, whether directed immediately to the fracture, or by using the foot as a lever to rotate the limb freely, caused the slightest indication

of disunion. In a month or six weeks after the limb had been brought into use, the patient threw aside all artificial supports, and walked as well as before the accident. There is no discoverable shortening of the leg.

I have doubts as to the fact of proper bony union in this case; and those doubts rest on the general circumstances of the patient, stated in the narrative as having been adverse to union in the first instance. There is certainly nothing in the state of the part, viewed abstractedly, to warrant the suspicion of heterogeneous connexion; no force, that can be properly employed, causes motion of the part, nor does it yield at all to the gravitation of the body. But instances have occurred in which pseudo union, or fibrous anchylosis, after fracture, has been so strict and firm as not to have been manifest either by sensible motion or defect of power in the part, and were only casually discovered during some autopsic examination. Even if it be the fact that actual consolidation has not obtained in the case just reported, pressure has not, on that account, been the less an important or beneficial mean of treatment. It has restored the limb to a state of usefulness it would not otherwise have regained. Neither always, nor generally does it happen that the weakness and discomfort of a false joint are spontaneously overcome in course of time. Cases have been shewn to me of disunion of the tibia from fracture, in which after three years the mobility was stated to be greater than it had been at the end of three months, and would have altogether prevented walking but for the partial support of the fibula.

CASE III.—A man was brought to the Baltimore Almshouse, 6th of January, 1828, with his head much cut, and his left arm in a state of excessive tumefaction, from blows given with a heavy stick. On examination, the ulna was found broken about the middle, but the inflammation and swelling were so great as to prevent the immediate use of bandage and splints. The limb was kept at rest, under the use of local applications designed to subdue inflammation; and this being sufficiently accomplished in six or eight days, the points of fracture were coaptated, and well sustained by splints in the usual mode. The forearm was suspended in a state of easy flexion.

Every necessary attention was paid throughout the treatment of this case to preserve proper relation of the bones to each other, repose of the parts, and due support; yet at the end of five weeks the fracture was found as susceptible of motion as at first. This man was at the middle age of life, of apparently sound constitution, and the failure of union could only be accounted for from the very great inflammation, intumescence, and effusion, which had

pervaded the limb in consequence of the blows, and the general disability in which the parts had been left when these passed off.

Pressure was resorted to in this instance also. A roller was laid smoothly from the fingers to and some distance above the elbow. Short splints, of binder's board, were fitted to the interior and external surface of the limb, to afford sufficient lateral support, and were well secured in place by a roller. A long splint of binder's board, incurved and adapted to the arm, was laid along its ulnar line, extending below the wrist to support the hand; and a shorter splint of the same material rested on the radial side, the two forming an external case for the arm, not quite close or meeting at the edges. The splints were made to embrace the arm by straps at short spaces, which, particularly at and near the fracture, were drawn as tight as could be borne. A due degree of pressure was thus constantly maintained as long as necessary, and the result was satisfactory in this instance as in the preceding cases. But considering the age and health of the patient, and the character and seat of the fracture, consolidation was here very tardily effected. It required two months' perseverance in the treatment by pressure before motion at the point of fracture ceased altogether. Now, however, fourteen weeks from the date of injury, union is perfect. The slow repair, even under close pressure and strict rest of parts, is perhaps attributable to the same cause which is supposed to have defeated union by the first process, namely, the feeble manner in which the actions of life were performed in the limb, in consequence of its having recently suffered so great inflammatory disturbance.\*

#### GONORRHŒA.

*Case of Gonorrhœa followed by Phagedæna Gangrænosa, Hemorrhage, and Scaly Eruptions.* By JOHN CHRISTOPHER DAVIE, Esq. Member of the Royal College of Surgeons, London.

A GENTLEMAN, æt. twenty-five years, residing near this place, consulted me, June 30th, respecting a gonorrhœa of a very severe kind. He had great difficulty and pain in voiding his urine, which was not passed oftener than once in twenty-four hours; considerable tenderness along the course of the urethra, and redness of the corona glandis, with an excessive discharge. These symptoms continued nearly three weeks, although leeches were applied to the perineum several times. The saturnine lotion was applied to the penis, the internal surface of the prepuce, and parts contiguous. Bowels acted upon freely by aperient medicine, state of quietude, and the antiphlogistic regimen strictly observed. Towards the 19th July, the continual pain had left him. He had still uneasi-

\* American Journal of the Medical Sciences.

ness when voiding his urine, and occasionally drops of blood passed. There were also distressing erections of the penis in the night, and the discharge from the urethra was of a more acrid nature, having a very offensive smell. For these symptoms the following was ordered:

R. *Copaibæ Balsami*, Sp. *Ætheris Nitrici*, aa ʒi.; *Tincturæ Opii* ʒi. M. *Capiat* gtt. xl. ex cyatho aquæ ter die. Afterwards, powders of Cubebs, which somewhat ameliorated his sufferings.

July 26th.—Complained of a sore on the corona glandis, for which the following was had recourse to:

R. *Hydrargyri Submuriatis* gr. xv.; *Liquoris Calcis* ʒij. M. *sat lotio*.

The sore at this time had not an unhealthy appearance. In the month of May he had three ulcers situated along the same tract, which yielded to the same application. He was strongly advised not to allow any of the discharge to get on the sore, which would be prevented by repeated washings with the former lotion, and the last application to the affected part.

27th.—The ulcer had a very foul appearance, and was somewhat below the surface of the skin. I touched it with lunar caustic.

28th.—The wound had a dark appearance all over its surface, more especially around its edges, somewhat extended, and attended with a burning pain. It was touched with the *Potassa Fusa*, which produced an eschar.

31st.—Slough separated, but the unhealthy aspect of the wound is not changed. Touched it freely with pure nitric acid.

August 3d.—This night felt considerably more pain than usual. Fifty drops of tincture of opium were given him. The slough had separated: one part of the sore had regained a healthy look, whilst the edges on the opposite side had a very dark appearance. The nitric acid was again applied upon lint, protecting the healthy part with dried lint.

7th.—Slough separated, and the unhealthy action of the wound is entirely changed, but it is not of a perfectly healthy granulating surface. There has been a slight discharge of blood, which I thought might have arisen from the separation of the dead parts from the living, as he used some force. In the middle of the sore there was a small black spot: it was dressed with a weak solution of nitric acid, five drops to an ounce of water.

8th, half-past five o'clock P.M.—Hemorrhage ensued to a most violent degree, bleeding through the dressings and rags wetted in cold water that were around it: prior to this it had bled three times in a slight degree, for which this morning it was dressed with *Tinct. Benzoini* c. Appetite not so good as it has been, and bowels constipated, probably from anodyne draughts taken at night to procure rest. Bowels relieved, *Ol. Ricini* ʒss. He is of an extremely irritable habit and disposition, the slightest change putting him out of temper, and fancying that he never shall recover. A messenger was immediately despatched after me, and at a

quarter-past six o'clock I arrived, and found him pale, languid, and with general coldness over his body, the parts still bleeding. Before this he had fainted. I immediately removed the dressings and the coagulated blood, in the hopes of finding the bleeding vessel: this however could not be effected, and, as he had lost a considerable quantity of blood (upwards of three pints in the whole), I used several dossils of lint to the part, and also around the penis. In about a quarter of an hour the bleeding ceased. Not the slightest movement of the body was permitted. Pulse tolerably good, considering the great quantity of blood lost. Port wine was occasionally given, and a nourishing diet directed.

11th.—There has been a considerable degree of fever, great thirst, heat of skin, white furred tongue; pulse between ninety and one hundred, full and strong; and bowels constipated. Wine discontinued, and low diet ordered. Salts and senna were taken to relieve the bowels. The parts below the lint are somewhat swollen and inflamed, having an erysipelatous blush. There has been a crackling heard on the opposite side of the wound, which discharges rather profusely, and has a disagreeable odour.—Dressings removed, and a considerable portion of the glans is absorbed; wound extending to the left side, but of a healthy nature. Dressed with Ceratum Album, taking care not to disturb the coagulum; rags wetted in cold water around; and perfect rest.

13th.—Coagulum separated.

16th.—The sore has a perfectly healthy aspect, discharging very profusely; the loose piece of the gland was brought together by adhesive plaster.

23d.—At half-past nine o'clock P.M. bleeding again ensued, but not in the same violent manner as before. The prepuce was swollen and inflamed, although lint had been applied to protect it. Dressings removed, and a finger applied to the part from whence the bleeding came, which was on the left side, next the corpora cavernosa, and it readily stopped. Dry lint used, and dressings of white cerate around the wound. Bowels constipated.

*Ol. Ricini ʒss. primo mane sumendus.*

26th.—Has an unpleasant ulcer on the prepuce: it was dressed with Unguent. Hydrarg. et Nitrico Oxydi.

29th.—Has pustules generally about his face and body, and in the night felt great pain in the head of the tibia of the left leg.

September 2d.—The sore on the prepuce has somewhat extended, and its appearance very much resembles the one on the glans. Dressed with pure nitric acid. The pustules have terminated in scaly kind of eruptions, very much resembling those of syphilis, being of a coppery colour and elevated surfaces. Takes two pints of decoction of Sarsaparilla daily.

5th.—Slough somewhat lessened, and the edges of the wound look healthy. He was somewhat alarmed by the urine coming through the wound on the left side of the gland: this is the first

time an unnatural aperture has been observed. His digestive powers are very good.

6th.—A flexible catheter was introduced, and allowed to remain to prevent the urine getting on the wound.

7th.—Slough separated, and wound healthy.

10th.—He expressed a particular wish for Mr. WARD, a professional friend, to see him with me, to which I did not object. At this time the loose piece of glans was quite healed, and that connected with the penis in part. A source of great irritation to the wound is the prepuce, which continually retracts over its surface, preventing its healing so readily as it would have done. The eruptions are nearly dispersed. He now took Quinina Sulph. internally, and, where there was any appearance of a sore, stimulating ointments were applied. Catheter still used.

12th.—Catheter discontinued on account of being plugged up by mucus. No urine is observed to flow through the wound.

20th.—Eruptions entirely dispersed. Sarsaparilla and Quinine discontinued.

29th.—Still a small sore on the glans next the urethra. The urine passes through its natural aperture. There is still a thin pale discharge from that part, probably from the unhealthy state of the membrane lining the urinary canal. He has regained his strength.

When the first sore shewed a disposition to slough, I thought that it arose from the application of the virulent matter to the new skin of the wound that had been there before: since, I have been inclined to believe that constitutional causes had a great deal to do with it. He has been accustomed to live very freely, and has drank ardent spirits largely.

*College Green, Gloucester.*

#### OPERATION FOR THE STONE.

*Bilateral Operation for the Stone, performed in LA PITIÉ, HÔTEL DIEU, and HOSPICE DE PERFECTIONNEMENT. FROM A CORRESPONDENT IN PARIS.*

THE operation of CÆLUS seems to be a favorite with the surgeons of the French metropolis, if we may judge from its performance about the same time at three of the principal hospitals, by M. LISFRANC, M. DUPUYTREN, and M. BOUGON. It consists, as the term implies, in an incision on both sides of the perineum, just above the anus, of a semi-circular shape, or nearly so; after which, by careful dissection, the surgeon cuts down upon the groove of the staff into the membranous part of the urethra. The scalpel, or concealed bistoury, completes the incision on both sides of the prostate obliquely downwards. M. Dupuytren uses a double-bladed



bistourie caché, which opens so as to effect the incision with the exact degree of obliquity required.

M. Dupuytren's patient, an old man, died after having lingered for two months under symptoms of inflammation in the pelvis, which at first were obscure, and latterly became more marked. To what are we to ascribe the accession of those symptoms which terminated in death? Doubtless to an hemorrhagy that occurred within the bladder and pelvis, in the course of the day after the operation, which nevertheless was performed with dexterity and despatch.

The mode of detecting hemorrhagy within the bladder or the cellular membrane of the pelvis, when no blood passes through the wound, as in the present case, is a point of vast importance; for the life of a patient may be sacrificed to the mere inability of the surgeon to discover the cause of alarming symptoms, and which unfortunately do not manifest themselves until blood has been extravasated in great quantity.

If the effusion be in the bladder, it becomes painful; the patient is seized with shivering, makes continual effort to pass his urine, and accordingly voids filaments of blood through the urethra. Pain is felt in the glans penis, and the distended bladder projects above the pubis. The patient is in continual agitation; is covered with cold sweats; his countenance is pale; his pulse small, frequent, and sometimes scarcely perceptible.

When the blood is only effused within the pelvis, the effort to void the contents of the bladder does not exist, but the other symptoms are the same. On examining, the external parts of the wound will sometimes be found plugged by a coagulum; the perineum will be distended, and of a dark purple colour.

As the practice of keeping the legs close after lithotomy impedes the discharge of blood through the wound in case of hemorrhage, M. D. considers it to be objectionable. External bleeding is easily arrested, but the internal is often detected too late for the salvation of the patient. Moreover, the presence of extravasated blood either in the bladder or in the cellular membrane of the pelvis, may produce fatal inflammation of these parts.

This unfortunate result was witnessed in this patient.

The treatment to be employed under these circumstances must be too obvious to require mention; but it may be proper to add, that, when the blood flows from a point accessible to the eye, M. D. cauterises the vessel with a red-hot iron.

If it has been extravasated within the pelvis, it must be carefully washed away by means of a syringe.

The operation at La Pitié was performed under the superintendence of M. Lisfranc, by one of the pupils. It was for the extraction of a calculus of considerable size, impacted in the neck of the bladder. The division of the prostate became unnecessary in this case. The first bilateral incision having been made, and the stone cut upon, polypus forceps were introduced, by which it was extracted. It was of large size, and found to be articulated at one extremity; a proof that another was left behind. The student accordingly passed his finger into the wound, and, having felt the calculus within the bladder through the distended neck, unavailingly attempted to seize it with the forceps. M. Lisfranc, who stood by, waited several minutes, from a desire to give the young operator the whole glory of bringing his work to a successful termination: he was at length, however, under the necessity of taking the forceps, and, with magical dexterity, extracted a calculus of large dimensions, and of a form which would contribute to impede its exit under the management of less practised hands.

A third portion, of smaller dimensions, then appeared, which was also extracted.

Wherein consisted the difference between the proceedings of the two operators? This was the explanation given; and here I may remark, that it is an invariable practice of the French surgeon freely to unbosom himself to the pupil, seizing every circumstance calculated to impart information, and exposing his own errors in thought and deed.

"When," says M. Lisfranc, "I introduced my finger to the calculus, I found the greater part of it situated behind the pubis, and impacted between its branches at the narrowest part of the space between them. To have grasped it by the forceps while in this position, would have been impossible: hence the failure of the first attempt. I saw that the only chance of extracting the stone was to dislodge it from the narrow part of the opening, and to bring it downwards. This I effected with the forefinger; but I had still to contend with another obstacle: it became impacted in a bed of condensed cellular membrane. The introduction of the thumb enabled me to overcome this new difficulty, and instantly to seize the stone with the forceps."

## HOSPITAL REPORTS,

*(Principally condensed from various Periodical Publications.)*

## CLOSURE OF THE VAGINA.

*Closure of the Vagina after difficult Labour ; Operation.*

ANN SMITH, twenty-six years of age, was admitted into ST. GEORGE'S HOSPITAL on the 3d of September last, with stricture of the vagina, succeeding protracted parturition. On examination it was found that an aperture existed, barely admitting the smallest bougie, and apparently owing to a very large cicatrix, the contraction of which had narrowed the opening. From this small aperture there issued much discharge, of brownish colour and offensive odour. The urethra had become so widely dilated as readily to allow the little finger to pass into the bladder. She stated that, two years before her admission, being some months gone with child, she was suddenly taken in labour, which lasted two days and a night; after which it was discovered that a portion of the vaginal membrane protruded through the os externum, and in the course of a few days it sloughed away. Bearing-down pains were felt for some time, and the urine occasionally came away in a very large stream.

The bowels having previously been emptied by aperients and an enema, Mr. KEATE, on the 11th, divided the stricture by means of the bistoure cachée, the incisions being carried upwards towards the arch of the pubes. The forefinger was then introduced into the opening, and the os uteri found unaffected. The discharge on breaking down the barrier of membrane was horribly foetid.

Three hours after the operation the patient experienced a rigor. The vagina was then syringed out; two or three coagula removed; a piece of oiled lint introduced; and five grains of calomel ordered immediately, followed soon afterwards by a dose of castor oil. Salines, with the sulphate of magnesia, every six hours.

From this time no febrile affection, or other constitutional disturbance, was experienced, an occasional purgative only being needed. On the 17th, the discharge was become purulent and healthy; and on the 22d, a bougie, three-quarters of an inch in diameter, was introduced into the vagina, after which she commenced the use of the dilator.

A little pyrexia and headache took place on the 2d of October, but were readily removed by salines, with antimony and a senna draught. On the 5th, when we saw her, she was well enough in health, and could bear the introduction of a good-sized uterus bougie into the vagina.

## TRISMUS.

*Case of Trismus, conjoined with Paralysis of the Face, at the  
MIDDLESEX HOSPITAL.*

THOMAS JONES, æt. twenty-nine, a groom, was admitted under Mr. BELL's care, October 11th: he complained of a painful stiffness in his jaws, and the muscles of one side of his face were paralysed. He stated that, on the last day of September, while dressing his horse, it struck him with the fore foot upon the right side of his head, and knocked him down. He remained insensible for some time. When he returned to consciousness, he felt weak, and a little sick. There was a wound, as if made by the heel of the shoe, just over the external angular process of the frontal bone. Nothing, however, was done for him, and he lived as usual. On the fourth day after the accident, he first perceived that his face was twisted to one side; he then had also some difficulty in speaking and swallowing. It was not till the 6th October that he consulted a medical man, who recommended him to come to the hospital.

The face is twisted to the left side, as in the cases of partial paralysis from injury to the portio dura; and this distortion of the face is most observable when he speaks. Upon being asked to close his eyes, the left is shut, but the eyelids of the right side are very imperfectly closed, and in the attempt the cornea is turned up. *The feeling on the right side of the face is as perfect as on the left.* It cannot be perceived how far the motion of the tongue is impeded, as he cannot open his mouth freely: he is apt to bite both his tongue and cheek while eating. The wound on the side of the orbit resembles a mere scratch, nearly healed. There was no bleeding from the ear after the accident, and he hears perfectly with both ears. There is a fullness and rigidity about the masseter muscle on the right side, and Mr. Bell thinks there is a preternatural swelling before the right ear.

Hirudines xij. ante aurem.—Pil. Colocynth. cum Calom gr. x. statim, et mane haustus purgans.—Lotio Plumbi Acet. cum Opio ad partem dolentem.

11th October.—The house surgeon was called in the morning to this patient. He found him struggling like one who is suffocated. He seemed to labour from a difficulty of expectoration; his jaws were firmly clenched; his face was livid; the muscles on the right side were relaxed and drawn to the left side; those of the neck were rigid, and in strong action. It required the power of two men to restrain him in bed. Two drachms of the tincture of opium were administered in small quantities between his teeth, after which the fit subsided. Today his jaws are more firmly closed. He complains of a pain at the back of his neck, as if something were dragging or pinching him there. His bowels have been opened. Pulse 110, and firm.

Cucurb. cruent. occipiti.—Hydrarg. Submur. gr. x.—Tinctura Opii ʒss. tertiis horis.

12th October.—The patient today was visited by Drs. LATHAM, WATSON, and HAWKINS. The teeth are more closed. The suffering of which he complains most is from the phlegm in his throat, which makes him cough, and he throws out his saliva as in hydrophobia. During the paroxysms he starts up in bed; and we find him now sitting on the side of it, unwilling to lie down, as he is afraid of a recurrence of the fits.

Capiat Hydrarg. Submur. gr. x.—Enema Opii.—Cucurb. cruent. nuchæ ad ʒi.—Descendat in balm. calid.—Cataplasma cum Lotione Plumb. Atet. cum Opio ad vulnus.—R. Extract. Tabaci; Unguent. Hydrarg. part. equal. fiat unguentum. This ointment to be rubbed upon the neck and jaws.

13th.—Yesterday he was put into the warm bath, which was followed by a copious perspiration, and he expressed himself relieved by it. The fits attacked him four or five times during the day, and they continued about five minutes each time. He was unable to speak during them. His head was thrown back and his chin tilted up, but not so much as to be called opisthotonos. He has never complained of spasms in his epigastrium. He possessed a perfect command over his arms, legs, and head; but he had convulsive twitchings as he lay in bed. About seven in the evening his jaw began to be relaxed, but this was accompanied with evident symptoms of approaching dissolution. He sunk gradually, after having had several severe fits, and died this morning at ten o'clock.

*Dissection*, twenty-four hours after death.—When the brain was examined, the tunica arachnoidea was found slightly opaque, and the veins were more turgid with blood than natural. There was also some serum in the ventricles; but in other respects, on a close examination of this organ, and of the nerves coming from it, the appearances were perfectly healthy. The roots of the fifth pair of nerves, and the course of the portio dura through the temporal bone on the right side, were carefully examined, without detecting any alteration from their natural structure. The spinal marrow seemed healthy. The nerves of the sympathetic system (in the abdomen and the chest) were examined, without discovering any thing preternatural. The viscera, both of the thorax and abdomen, were in a healthy state, and the lungs were not more gorged with blood than is common. The glandulæ truncatæ at the root of the tongue were enlarged; but there was no redness marking inflammation either in the fauces, or larynx, or œsophagus.

Mr. Bell, in his observations on this case, first remarked its resemblance to some cases of partial paralysis of the face, in which he had been consulted during the present season. He admitted that the incapacity of closing the eye, and the total loss of motion of the lips and cheek on one side, deceived him when he first saw this patient in the waiting room. The anomaly of the case was, that on the side where the hurt had been received, the exterior muscles of the face, all those

influenced by the portio dura, were in a state of paralysis; whilst the muscles of the jaws, supplied by the fifth pair, were in a state of tetanic spasm. Mr. Bell related a case of paralysis of the muscles of the face on one side, produced by a blow upon the head; but he added that, in the present case, on looking retrospectively, there was no reason to suppose the symptoms referrible to an injury of the brain, much less to an injury of the nerve passing through the bone: it was, he conceived, a case of trismus, arising from the slight bruise of the integuments of the temple operating upon a constitution morbidly predisposed.

#### DYSENTERY.

*Cases of Chronic Dysentery, treated at the PENNSYLVANIA HOSPITAL, by J. K. MITCHELL, M.D.*

THE seamen whose cases follow were admitted on the afternoon of the 17th of May, 1828, with dysentery of five weeks' duration. They arrived a few days previous to their admission from a port in the West Indies, after a voyage of near four weeks, and attributed their sickness to the warm weather and bad water.

CASE I.—Joseph Mitchell, aged thirty-eight years, seaman.

Symptoms: Has had four slimy stools since morning; some pain in the bowels; vomited several times today; pulse seventy-five; tongue natural; skin moist.

Treatment: *Ol. Ricini* ℥i. statim. *Pil. Cœrulæ* grs. iij. at night.—

Diet restricted to gum Arabic water and slippery elm tea.

18th, nine A.M.—Pulse, tongue, and skin natural; one stool since oil operated.

Directed grs. iij. *Pil. Cœrulæ* to be taken at bedtime, and to continue diet as yesterday.

19th, nine A.M.—Three stools in last twenty-four hours.

Diet: Tapioca and one cracker,\* in addition to slippery elm tea and gum Arabic water.

20th, nine A.M.—Three stools, nearly natural; no pain.

Continue diet as yesterday.—*Pil. Cœrulæ* grs. iij. at bedtime.

21st, nine A.M.—One stool, natural.

Diet: Tapioca, boiled milk, crackers, and chicken soup, prepared by boiling the chicken in barley water.

24th.—Allowed the diet of the house. 26th.—Discharged well.

CASE II.—Samuel Amee, aged twenty-five years, seaman.

Symptoms: Has had six slimy stools since morning; tormina and tenesmus; pulse ninety, full and compressible; tongue red and rather glossy.

\* A kind of small hard biscuit.

Treatment: *Ol. Ricini*  $\mathfrak{z}$ i. statim. *Pil. Cœrulæ* grs. iij. at night.—Diet restricted to slippery elm tree and gum Arabic water.

18th, nine A.M.—Two stools since oil operated, these more natural. Continue diet.

Seven P.M.—Tongue less red; pulse seventy-seven; one stool since morning.

Continue same diet.—*Pil. Cœrulæ* grs. iij. at bedtime.

19th, nine A.M.—No stool since evening; tongue and pulse natural.

Diet: Tapioca and one cracker, in addition to slippery elm tea and gum water.

20th, nine A.M.—One stool, natural; no pain.

Diet same as yesterday.—*Pil. Cœrulæ* grs. iij. at night.

21st, nine A.M.—One stool.

Diet: Tapioca, boiled milk, cracker, and chicken soup.

24th.—Allowed the diet of the house. 26th.—Discharged well.

CASE III.—Andrew Amec, aged twenty years, seaman.

Symptoms: Has from fifteen to twenty stools in twenty-four hours, (has had fifty.) These are bloody and slimy, and accompanied with tormina and tenesmus; tongue red and glossy; pulse fifty-five; skin moist.

Treatment: *Ol. Ricini*  $\mathfrak{z}$ i. statim. *Pil. Cœrulæ* grs. iij. at night.—

Diet restricted to slippery elm tea and gum Arabic water.

18th, nine A.M.—Five stools since oil operated; these less bloody and with less pain.—Continue diet.

Seven P.M.—Two stools since morning, more natural; pulse seventy-eight.

*Pil. Cœrulæ* gr. iij. at bedtime. Continue diet.

19th, nine A.M.—Three stools since evening; pulse eighty; tongue less red.

Diet: Tapioca and one cracker, in addition to slippery elm tea and gum water.

Seven P.M.—Not so well. Has had five bloody and slimy stools since morning, with more pain; pulse ninety-two; tongue red; skin hot and dry; pain in the head and bowels.

V.S.  $\mathfrak{z}$ xij. Diet restricted to slippery elm tea and gum water.

20th, nine A.M.—Better. Two stools, slimy but with very little blood, and attended with less pain; pulse, skin, and tongue more natural. Blood taken last evening was sisy.

Diet same as last night.

Seven P.M.—One stool, which was more natural and contained no blood.

Diet as before. *Pil. Cœrulæ* gr. iij. at bedtime.

21st, nine A.M.—One stool, almost natural; no pain.

Diet: Tapioca and one cracker, in addition to slippery elm tea and gum water.

22d, nine A.M.—Two stools, natural.

Diet: Tapioca, boiled milk, crackers, and chicken soup.

24th.—Diet of the house. 25th.—Discharged well.

CASE IV.—Josiah Phillips, aged eighteen years, seaman.

Symptoms: Has twenty slimy stools in twenty-four hours; tormina and tenesmus; some pain upon pressure on abdomen; tongue red at edges, and slightly furred in the centre; skin hot and dry; pulse 120.

Treatment: V.S.  $\frac{3}{4}$ ij. Ol. Ricini  $\frac{3}{4}$ i. statim. Pil. Cœrulæ grs. iij. at night.—Diet restricted to slippery elm tea and gum water.

18th, nine A.M.—Much better. Pulse more natural; skin relaxed; little pain in bowels; four stools since oil operated, these with much less pain.—Continue diet.

Seven P.M.—Two stools, these more natural.

Diet as before.—Pil. Cœrulæ gr. iij. at bedtime.

19th, nine A.M.—One stool, without pain, nearly natural; pulse seventy-five; skin pleasant; tongue cleaner in centre.

Continue diet, and in addition allowed tapioca and one cracker.

20th, nine A.M.—One stool.

Continue diet as yesterday.—Pil. Cœrulæ gr. iij. at bedtime.

21st, nine A.M.—One stool, natural.

Diet: Tapioca, boiled milk, crackers, and chicken soup.

24th.—Diet of the house. 26th.—Discharged well.

#### FRACTURE OF THE CRANIUM.

*Fracture of the Cranium, with extensive Depression; Operation.*

(GLASGOW ROYAL INFIRMARY.)

DANIEL MACLEOD, aged eleven. About four o'clock P.M. while working inside the boiler of a steam-engine, one of the rivets used in fastening the parts of the boiler together was driven violently through by the blow of a hammer from one of the workmen, and struck his head. He was rendered insensible for some time, and lost a considerable quantity of blood from a wound of the scalp, an inch and a half in length, over the occipital angle of the right parietal bone. He was brought to the hospital two hours after the accident, and admitted under the care of Dr. MACLACHLAN.

On raising the detached portion of scalp, a fracture was brought to view, in diameter three-fourths of an inch, and depressed obliquely nearly half an inch. He laboured under some stupor, but was quite sensible. Pulse eighty-four, of moderate strength; motions of limbs unaffected.

Sumat statim Calomel  $\frac{\text{ʒi}}{\text{ss}}$ .

Second and third day.—Was bled and purged, and went on favorably.

Fourth day.—Passed a good night. Countenance slightly flushed; pulse ninety; skin rather warm; tongue red and dry. Several stools.

On the sixth day he complained of pain in front of right ear, and on the seventh of pain in the vicinity of fracture; but in other respects was well. Pulse eighty. Towards the evening, however, he began to doze; and on the eighth is reported as having remained



almost constantly in a torpid state. He vomited after taking breakfast, and could be brought to answer questions with difficulty. Respiration easy; pulse sixty-five; skin natural; pupils slightly dilated, and sluggish. A consultation advised immediate elevation of the depressed portion of bone.

A triangular incision was made in the scalp, and a piece of bone, nearly an inch square, was found depressed in the most prominent part of right parietal bone. This depressed piece of bone seemed to have yielded at the centre, as it was found divided into three or four parts, the fracture running from the centre to the circumference, and thus forming several triangular pieces, the acute angles of which were pressed directly down upon the brain. Two applications of the trephine were necessary before the pieces of bone could be raised. The internal table was found more depressed than the external, having wounded the dura mater at several points. The brain also had been wounded by the spicula, small portions of it being observed floating in the blood. The depressed brain and membranes rose to their natural situation: the boy immediately seemed more lively, his pupils became active, and his pulse rose from sixty-five to ninety-six. With the exception of a pretty smart feverish attack about a week afterwards, the boy did well; and exactly a month after the accident he was dismissed cured, the wound being healed and the pulsations under it scarcely perceptible. He has since come to shew himself in perfect health.

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#### DISLOCATION OF HIP.

##### *Dislocation of the right Hip, with compound Fracture of the left Leg.*

WILLIAM WANKLIN, æt. twenty-three, was received into the WORCESTER INFIRMARY, February 27th, under the care of Mr. SHEPPARD, in consequence of a severe injury he received by a quantity of gravel falling on him while working in a pit. The accident occurred in the neighbourhood of Malvern, a distance of eight miles, and he was sent to the hospital in an open cart. The day was very wet and cold, and the patient, on his arrival, was faint and much exhausted. On examination, the right hip was found to be dislocated, and there was also a compound fracture of the left leg. The present state of the patient being judged most favorable to the reduction of the hip, the fractured limb was temporarily secured in splints, the patient placed on a table, and the dislocation (which was in the ischiatic notch) was reduced by extension with the pulleys in less than ten minutes. The patient was now removed to bed, the bones of the leg placed in apposition, and the wound, being small, and not much contusion surrounding it, united by the first intention. The patient was discharged cured in six weeks after the accident.

## TUMOR.

*Tumor over the Orbitaly Plate of the Frontal Bone.*

ON the 30th of March, 1824, Dr. MALDEN was requested to see A. B., a patient in the WORCESTER INFIRMARY, æt. forty-five, a labourer. A few hours before, he had become insensible, with paralysis of all the muscles on the right side of the body; he had stertorous breathing, with the pupil of the eye contracted to a point, the iris motionless, and the pulse slow. He came to the infirmary a month before this time, complaining of pain and inflammation in his left eye, for which he was admitted by the surgeon. Upon examination, there was found a small fistulous opening beneath the superciliary ridge of the affected eye, through which a probe could be passed to the back of the orbit. A fortnight after his admission, he was seized with shivering, nausea; quick pulse, some degree of somnolency alternating with restlessness, hot and dry surface, and flushed face. These symptoms subsided, and he continued better up to the time of the attack on the 30th of March above described. Some white curdy matter escaped from the fistulous opening above the eye. Trepanning the frontal bone over the left orbit was proposed, but it was not done. Leeches were applied to the head; blood was also drawn from the temporal artery; and the bowels were, with difficulty, opened by strong purgatives and clysters of turpentine. He died five days after the appearance of the apoplectic symptoms.

*Examination of the body,* twenty-four hours after death.—A tumor, white and cheesy, of the size of a large walnut, lay above the left orbit, about the middle of the superciliary ridge. It appeared to have been formed between the tables of the frontal bone, which it had separated from each other, producing absorption of the cancellar structure; also of the inner table, and of the orbitaly plate, so that the tumor was in contact with the eyeball beneath and the dura mater behind. The dura mater was adherent to the tumor on one side, and to the pia mater on the other, and at the place of adhesion was blackened for the space of a shilling. Immediately behind the tumor was an abscess, occupying the whole anterior lobe of the left hemisphere of the brain, and containing three ounces of fetid pus. The medullary substance of the brain around the abscess was softened, and had a yellow tint. The vessels of the brain were turgid with blood, and there were two ounces of serum in the lateral ventricles.

## FUNGUS HÆMATODES.

*Amputation of a large Fungus Hæmatodes of the Breast.*

Mrs. T., aged thirty-five, ten years ago first perceived a tumor, about the size of a walnut, in her right breast, which gave her no pain, and did not sensibly increase until she weaned her second child, two years and a half ago. From that period it enlarged

rapidly, and when she came to Gloucester to consult Mr. Fletcher, (some time in October 1827,) it had attained a very considerable size. The growth of the tumor was attended with a dull heavy pain: it was likewise subject to periodical attacks of active inflammation, during which shooting pains were experienced, and the glands in the axilla became temporarily swollen. Mr. Fletcher recommended its removal, to which she would not then consent. Recourse was therefore had to the repeated application of leeches, with low diet, which diminished the tumor for a time, but produced no permanent benefit.

The tincture of iodine was tried at one time, and at another a course of mercury, without any perceptible advantage.

She then left Gloucester for some months, and returned the beginning of July, 1828, to the GLOUCESTER INFIRMARY, having determined to submit to an operation.

At that time the tumor had attained a very large size, and appeared to consist of several masses, having a firm and somewhat elastic feel. Veins, very numerous, and as large as the little finger, ramified in all directions over its surface. She complained of a dull heavy pain, but no shooting or lancinating pains were experienced. There was a slight adhesion near the sterno-clavicular articulation. The glands in the neighbourhood of the disease were neither enlarged nor painful.

The remarkable size of the tumor, its progress, history, and strongly vascular character, decided Mr. Fletcher in the opinion that the complaint was of the nature of fungus hæmatodes. A vast hemorrhage was therefore anticipated on its removal, and, as the shock of so severe an operation would inevitably require all the powers of the constitution to withstand it, the least unnecessary loss of blood was to be guarded against with more (if possible) than usual care.

Hence Mr. Fletcher directed that, immediately on the removal of the tumor, two of the attendants should be ready to place the palms of their hands firmly on the bleeding surface. The subclavian artery was compressed over the first rib, by means of a large padded key. Three or four ounces of wine were given before the commencement of the operation.

The first incision was quickly made round the tumor, wide of its base, when some arteries bled furiously, one of which was tied; but as it was thought that the advantage of securing the rest would not compensate for the loss of blood, the dissection was rapidly proceeded with, and the breast removed, by the knuckles and the knife, in about a minute and a half. The rush of blood, chiefly venous, was tremendous, and, though commanded as soon as possible, by the means previously directed, the loss was very considerable, probably not less than three pints. The pressure on the sore, and that on the subclavian, were continued for eight or ten minutes, when the former being gradually removed, the vessels which bled (about seven in number) were secured.

The shock produced on the nervous system by this severe operation, and the great loss of blood, reduced the powers of life to a very low ebb. The patient was cold, livid, and speechless. Great quantities of wine and brandy were given during the operation, and some at intervals afterwards; and, until five hours had elapsed, it was not thought safe to remove her off the table into her bed.

The parts removed weighed exactly *seven pounds and a quarter*, and, the diseased structure being cut into, exhibited the usual brainlike appearances.

Abundance of skin might have been saved in this operation, but Mr. Fletcher determined to keep the wound quite open, that he might thus be enabled to detect any unhealthy appearances; and it was fortunate that this plan of treatment was adopted, for, during the first five weeks, small vascular spots, with yellow lymph deposited round them, were continually presenting themselves in different parts of the surface, and were immediately destroyed by the strong arsenical ointment, or nitric acid very slightly diluted. For the last month nothing of the kind has been seen, and the wound is contracted to the size of a crown-piece, with a healthy granulating even surface, presenting altogether a prospect most favorable and satisfactory.

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#### INFLAMMATION OF VEIN.

##### *Inflammation of the Vein: Purulent Depôts in and about the Shoulder and Knee-Joint.*

ALEXANDER DOBIE, æt. twenty-eight, a stout and apparently healthy young man, was admitted into ST. GEORGE'S HOSPITAL, at half-past three o'clock in the afternoon of the 14th September, with a tumor (apparently strangulated hernia) in the right groin. Five years before his admission, a second tumor made its appearance, which afterwards often came down, but could always be returned. Two or three years subsequently to its first appearance, the hernia became strangulated, but at the end of three days was reduced by a surgeon; since which occurrence he had generally worn a truss. While digging in a garden the day before admission, the hernia came down, and resisted all attempts at reduction.

The man was of a remarkably captious and intractable temper, and prevented Mr. KEATE from employing the taxis long or efficiently.

He was bled to thirty ounces; the taxis thrice tried, without effect; sickness supervened; and under these circumstances Mr. K. proposed the operation to the patient, who absolutely refused to undergo it. Calomel and extract of Hyosciamus, followed by tobacco enema, were ordered; and next day the tenderness of abdomen had subsided, whilst the tumor still remained. With the aid of a senna draught, free evacuations from the intestinal canal took place on the two succeeding days; the local pain and ten-

derness quickly passed away; the hernia, though it never decidedly and suddenly "went up," progressively diminished in size, and ceased to be an object of attention.

A new train of symptoms now arose: symptoms attended, in this hospital at least, with uniformly disastrous and fatal results.

The wound which had been made by the lancet in bleeding inflamed, but at first was considered a common sore arm. The patient being feverish, was ordered, on the 22d, salines, with antimonial wine, and a purgative.

On the 25th, however, the inflammation had increased; the arm was swollen from the elbow to the shoulder; a blush of erythema suffused the skin; the vein was thickened above the puncture; and matter could be pressed, to some slight extent, from the latter. No red line in the course of the vein was noticed at this or any subsequent time. The skin was hot; the tongue moist and coated; pulse eighty-six; bowels open; no delirium, and little alteration of manner.

Pulv. Ip. grs. xx.; Ant. Tart. gr. i. pro emetico.—Hyd. Subm. grs. v.; Opii gr. iss. post horas tres.—Liq. Ammon. Acet.; Aq. distil. āā ʒvj.; Syr. ʒi. quartis horis.

On the 26th, he complained of shooting pain about the shoulder, which increased next day; in addition to which, matter seemed forming under the fascia at the bend of the arm. In the afternoon he had a rigor. At five P.M. an incision was made at the inside of the arm, opposite the inner condyle, but nothing was discovered. No relief ensued, and the morning of the 28th was ushered in by another fit of shivering, followed by reaction and sweating. The arm was now beginning to improve, and never after gave much inconvenience.

On the 30th, he was ordered Camphor Mixture, with the Liquor Ammonia Acetatis. A rigor was experienced in the evening. He passed an indifferent night, and was worse on the 31st. The arm was kept constantly enveloped in a linseed poultice, and placed in the semi-bent position.

On the 3d of November, the arm was so well that the common erysipelas ointment was substituted for the linseed poultice; but on the 4th the patient all at once complained of pain in the right knee, which, as well as the ham and calf of the leg, was swollen and tender upon pressure. A lotion was applied, and a mixture taken, consisting of—

Haust. Salin. ʒiss.; Tinct. Humuli ʒi.; Vin. Ant. Tart. m. xx.; Tinct. Opii m. vi. quartis horis.

On the next day, the swelling and pain had increased, attended with some slight dyspnoea and cough. Ten leeches were applied, and succeeded on the 6th by eighteen more.

On the 7th, there was a pause in the local symptoms, but the voice was remarkably husky; the breathing not natural nor free.

On the 8th, no pain was experienced in the knee, but decided

fluctuation was perceived both in and about the joint. Salines, with opium and tincture of bark, were given. Next day the parts were hot and tender, in consequence of which ten leeches were applied, and a blister placed both above and below the knee on the 11th. The swelling, notwithstanding, extended; the fluctuation became more distinct; diarrhœa set in; and the system was evidently suffering severely.

On the 22d, an opening was made at the inferior part, and outside of the thigh, and five ounces of pus, or thereabouts, let out. This incision in the thigh was followed by another in the shoulder, two or three days afterwards: from the latter was evacuated an ounce of fetid pus. On the 27th, the opening in the thigh was enlarged, and next day another incision had recourse to on the inside of the knee. On the 31st, it was once more necessary to employ the lancet in the calf.

The patient expired on the 2d November.

*Dissection.*—State of the veins of the arm: All trace of inflammation had passed from without, and the puncture was healed. The median basilic had been wounded, which vein, in conjunction with one or two branches of the basilic itself about the inner condyle, was thickened in its coats, and obliterated in its cavity. Some half-inch, or inch, above the puncture, the median basilic was pervious again, and so continued for two or three inches, when again its calibre was diminished, and its cavity choked up. This state of things continued as high as the junction of the common basilic and subscapular, that junction which constitutes the axillary trunk. Here the inflammation ceased; and the axillary was as free, as healthy, and capacious as ever. The cellular membrane, in the course of the brachial vessels, was condensed, and the vessels themselves in some degree matted together.

State of the joints: Under the deltoid was one *foyer* of dark and semiputrid looking pus. The bone was bare; the capsule of the shoulder-joint was gone, destroyed; the articulating cartilages destroyed also: in short, the most extensive mischief had occurred both within and without the joint.

For the lower half of the thigh, the femur was literally insulated from the soft parts round by one collection of putrid matter: periosteum, muscle, all were involved alike. The capsule, as in the shoulder, was no longer to be seen, at least in its upper part; the matter could be poured from the thigh into the knee-joint, or from that again into the thigh, with perfect facility; the cartilages were almost entirely destroyed, and the limb presented a shocking appearance.

The viscera shewed nothing remarkable. Head not examined.\*

\* Medical Gazette.

## NEEDLE IN THE LARYNX.

*Case in which a Needle was introduced into the Larynx.*

A MAN had been using a needle for the purpose of scratching his nostril: having let it go, it passed backwards into the fauces, and fell into the windpipe. The needle had a thread attached to it, which was entirely drawn in, and disappeared. Violent fits of coughing and attempts at expectoration immediately came on: by these the end of the thread was ejected, and the patient laid hold of this and pulled it. These attempts gave him great pain, but were unavailing. He continued for three days in a state of great anxiety and suffering, during which he made numerous ineffectual attempts to pull out the needle. At length he came to the BEAUJON, at Paris.

The thread was still hanging out of the mouth, and some efforts were again made by the house surgeon to extract the needle by pulling it gently, but in vain. M. BLANDIN, when he arrived, found that the thread had disappeared during the act of deglutition, nor could he recover it by introducing the fingers into the pharynx, nor by any other means. Uncertain whether the needle had really got into the larynx or the gullet, he contented himself with applying thirty leeches to the throat, followed by a poultice, &c. Next day the patient was much in the same state, and was bled to sixteen ounces, and had twenty leeches to the neck, &c.

For two days more there was little to remark; when, during the visit, the patient expelled the end of the thread in a fit of coughing. M. Blandin, having satisfied himself that the needle could not be pulled out, fixed the thread upon the cheek with a little adhesive strap, and resolved to operate next day.

On the following morning the respiration was more difficult, and the voice more hoarse. M. Blandin, having again tried various means of extracting the needle, proceeded to operate. The patient was placed horizontally on a bed facing the light, and M. Blandin, standing on the right side of the patient, fixed the larynx with the left hand, and then endeavoured to find the crico-thyroid space, but the swelling rendered this impossible; he therefore made an incision through the skin on the median line, about a third of the length of the throat, and afterwards divided the subjacent parts very cautiously: it was not till he had penetrated to the depth of an inch that he laid bare the crico-thyroid membrane. Some bleeding took place, but the hemorrhage soon ceased. The nail of the forefinger of the left hand was placed transversely on the membrane, which was then punctured, and cut in the same direction. A grooved and curved director was introduced by the wound, and carried upwards, and the thyroid cartilage divided upon it throughout its whole length. Respiration was now freely performed through this large opening, but the voice was lost. A polypus forceps was introduced at two different times, and speedily withdrawn, on account of the irritation it excited, but without

the needle. Considering it possible that the needle might be expelled in a fit of coughing, the patient was put to bed, the wound being lightly covered with a piece of linen pierced with holes, and spread with cerate.

On the following day a needle, nineteen lines in length, blackened, and as it were bronzed, was found attached to the compress laid over the wound.

The wound healed very slowly. The operation was performed on the 22d of June, and a fistulous opening, with great weakness and hoarseness of voice, remained in September. On the 30th of that month, it is stated that, by means of caustic applied to the edges of the aperture, it had at length closed, and the voice regained some of its former strength.\*

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#### WOUND OF THE HEART.

*Wound of the Heart, in which the Patient survived the Accident ten days.*

VICTOR JANSON, sixteen years of age, on the 8th of September wounded himself accidentally in pulling a knife from one of his companions; but, as he felt no pain, he supposed he had only cut his waistcoat. He laid the knife upon the table, walked out into the court, and remained there ten minutes without even thinking about the accident. At the end of this time he observed his clothes stained with blood; he vomited, and fell to the ground.

He was conveyed to LA CHARITÉ. The blood which flowed at this time was florid. When brought to the hospital, his face was pale, his lips colourless, eyelids drooping, respiration short and frequent; pulse small, frequent, and compressible; the shirt and clothes of the patient bathed in blood. Between the fourth and fifth ribs of the left side, near two fingers' breadth from the sternum, was a transverse aperture, from six to seven lines in length. It was remarked that the wound of the integuments did not correspond exactly with that of the muscles or pleura; and this want of parallelism prevented the blood from having a free exit. In order to determine the exact direction in which the instrument had penetrated, and the hemorrhage continuing, the extremity of a covered director was introduced into the wound; and seeing that it tended to run from within outwards, and from above downwards, it was withdrawn, without introducing it within the chest. The lips of the wound were gently approximated by means of adhesive straps, and a compress and bandage applied, moderately tight. The left and back part of the chest emitted a dull sound on percussion; the respiratory murmur was feeble at the upper part, and entirely wanting beneath. On the right the sound was clear, and the respiratory murmur very perceptible. The patient being laid on his back, the sound was sufficiently clear

\* Journal Hebdomadaire.



above and in front, but dull beneath and at the side, where the respiratory murmur was lost. These different signs clearly pointed out considerable extravasation of blood into the chest. The patient continued all this time with his eyes shut, and insensible. He was bled, and sinapisms were applied to the calves of the legs, the feet rolled in warm cloths, and the hands retained some minutes in warm water.

Next morning it was found that he had slept two hours during the night. Some reaction had manifested itself. He was directed by M. BOYER to be bled three times, viz. immediately, at mid-day, and at night. The first produced a momentary relief; the second and third also somewhat diminished the oppression.

The symptoms still remaining, on the third day he was again bled, and the venesection once more repeated at night.

On the 11th (the fourth day), the patient was in great distress, and the dressings were removed. M. Boyer then directed him to cough; dark blood flowed copiously from the wound. The left side of the thorax was observed to be more prominent than the other, and the intercostal spaces were obliterated: a portion of air entered the chest in lieu of the blood evacuated. The dressings were again applied. In the evening, the oppression continuing, twenty leeches were applied to the anus.

On the 12th and 13th, he continued with gradually increasing oppression of respiration, anxiety, and general distress.

On the 14th, M. Boyer introduced a probe through the wound into the chest; immediately the blood sprung to the height of several feet. He then removed the instrument, and tried to introduce his little finger. This brought on a kind of spasmodic action of the respiratory muscles, and the blood escaped as before. Air entered to occupy the place of the blood; the pulse became extremely feeble, and little or no relief was given to the breathing. About three o'clock in the morning he died.

*Examination.*—An incision was made at the inferior and back part of the thorax, through which about a pound and a half of blood was extracted. The chest was then opened with great precaution. An aperture was found in the pericardium, which was thickened and inflamed throughout its whole extent: it adhered to the heart only at the edges of the wound. It contained pus, particularly at the lower part, where the quantity was considerable: it was thick and greenish. An opening, rather less than that in the pericardium, existed in the left ventricle: this ventricle was removed by two incisions parallel to the septum. A stilette, introduced from without inwards, penetrated into its interior, and pushed out a little clot of blood. The inner aperture was extremely small. A false membrane, which lined the surface of the pericardium and the heart, extended itself across the wound; the heart appeared to be becoming inflamed, being thickened and very hard. There was no blood in the pericardium; no artery that could be seen was wounded.—*Ibid.*

## CRITICAL ANALYSES.

Quæ laudanda forent, et quæ culpanda, vicissim  
 illa, prius, eretâ; mox hæc, carbone, notamus.—*Plautus*

*Commentaries on the Causes, Forms, Symptoms, and Treatment, Moral and Medical, of Insanity.* By GEORGE MAN BURROWS, M.D. Member of the Royal College of Physicians of London, &c. — 8vo. pp. 716. Thos. and Geo. Underwood, London, 1828.

(Continued from p. 462.)

COMMENTARY III. *Physical Causes.*—Dr. BURROWS believes that the greatest obstacle to the knowledge of the pathology of insanity, has been the long prevailing error of studying the mental, to the neglect of those corporeal phenomena which are almost always cognizable. The hallucinations of the mind are only the signs of its disorder, as symptoms are of corporeal disorders, and are therefore of but secondary importance in the study of insanity.

“Where is the utility of studying the characters of the mental delusion? Can it signify whether a lunatic fancy himself to be a deity or a monarch, a philosopher or a conjurer, or any thing animate or inanimate? Ought we not to prefer examining the various signs which indicate functional or structural lesion, and endeavour to find out whether the attendant delirium is idiopathic, symptomatic, or sympathetic?” (P. 58.)

Dr. Burrows touches slightly, and with candour, upon the subject of phrenology. He does not presumptuously venture to assert that the subject is altogether one of error. The grounds on which it is founded demand a long, careful, and personal investigation; and he confesses that he has not in every respect given it the necessary consideration. He relates the following anecdote; but whether it proves an error in judgment of the celebrated founder of the system, or that the heads examined were examples of perverse configuration, he does not venture to decide.

“When Dr. Gall was in this country, he went in company with Dr. H. to visit the *studio* of the eminent sculptor, Chantrey,

“Mr. C. being at the moment engaged, they amused themselves in viewing the various efforts of his skill. Dr. Gall was requested to say, from the organs exhibited in a certain bust, what was the predominant propensity or faculty of the individual. He pronounced the original must be a great poet. His attention was directed to a second bust. He declared the latter to be that of a great mathematician. The first was the bust of Troughton, the eminent mathematician; and the second that of Sir Walter Scott!

"Talent, the phrenologist asserts, is relative with the ample development of the cerebral mass. Mr. Chantrey exhibited to Dr. Gall drawings of numerous heads. The cranioscopist selected one, whose ample cerebral development gave a sure index of vast talent. It was a fac-simile of the head of the Earl of P—mf—t!" (P. 67, *note*.)

Dr. Burrows has himself assisted at several accurate anatomical investigations, conducted by eminent demonstrators, of the crania of insane patients who had been under his care, and who had exhibited, up to the hour of their decease, the most furious symptoms of mania for months, and yet not a vestige of disease could be traced.

"Similar results have strengthened the assumption that insanity is purely a mental affection: hence also the impression that, whenever there was any lesion or disease observed in the encephalon, such was the effect, and not the cause, of the insanity. And this inference was further confirmed by the remarks of Pinel, Esquirol, &c. that the same morbid appearances displayed in the bodies of those who had died mad, were discovered in the corpses of those who had died of diseases quite unconnected with insanity. Others were weak enough to imagine, because many insane persons recovered their faculties, that therefore their derangement could not have a corporeal origin.

"But we ought not to presume, because there are no visible marks of a morbid condition of the brain or its appendages, that therefore the whole are in a perfectly healthy state. Where is the anatomist who will dare maintain that a brain is free from disease or structural change, because, after the most minute inspection, he cannot discover any?

"That eminent physiologist, Haller, conceived that, 'in disorders of the mind, the brain and its connexions are usually affected: and when, in some rare instances, we can discover no disease of these parts, we may conclude, either that it is seated in their very elementary particles, or has not been sought for with sufficient patience and attention.' But, even in the elementary composition of the brain, anatomists are not agreed. How, therefore, can they pronounce whether a brain is in a sound state or not?

"Except in connate idiocy, and mental derangement from mechanical injuries, what direct proof is there that insanity has its seat in the brain?" (P. 70.)

When an insane person has been cut off by an acute disease or accident, or has destroyed himself, and the insanity has been of short duration, there are seldom exhibited any alterations or morbid appearances in the encephalon, beyond slight vascular congestions or effusions. In long standing cases, a post-mortem examination *generally* exhibits strong

evidence of disease in that organ. Sometimes, however, violent insanity has continued for years, and not a visible trace of diseased structure or action has been discovered in the brain or elsewhere. The same fact holds good with respect to many other diseases.

"Is not the human body subject to, and influenced by, peculiar diatheses? Will the scalpel detect the apoplectic, hydrocephalic, scrofulous, or gouty diathesis? The testimony of Morgagni, Cheyne, Abercrombie, Powell, Stark, &c. prove that death from apoplexy frequently occurs; and yet no evidence of cerebral lesion has been discovered on the minutest investigation of the brain." (P. 72.)

The author very properly asks, why should we expect to discover by the eye the maniacal diathesis, when all others are impenetrable?

"Again: the organs of the external senses are five distinct pairs of nerves. But although the offices of these nerves be distinct, having no relation one to the other, yet there is no difference in their internal structure, by which their appropriate functions are manifested. It is not by examining the substance of any detached nerve, that we ascertain the specific sense which it conveys: that is known by its situation and connexions, and not by its texture.

"Further: who can say that excitement, nay inflammation itself, has not existed in the brain, if the circulation through a great portion of it is, as it is said to be, colourless? A morbid action of other important organs is indicated by appropriate symptoms, and yet, on a subsequent examination of the suspected organ, it often appears perfectly sound. A disease of an organ may be structural or functional; and the former may cease, while the latter, though a consequence, is long protracted. Thus, as every other organ imbibes morbid actions, of which post-mortem examinations offer no evidences, and which morbid action is *sui generis*, is it inconsistent to conclude that the brain also assumes a peculiar action, which may be appropriately designated the maniacal?" (P. 73.)

The collection made by Dr. SCIPION PINEL, embracing those of Messrs. ESQUIROL, VILLERMAI, BEAUVAIS, and SCHWILGÆ, and which in the aggregate comprise 259 dissections of maniacs, offers a mass of pathological examinations particularly worthy of record. They are thus classed:

*"Lesions of the Brain.*

Apoplexy	27
Organic lesion of the substance of the brain	19
Organic chronic lesion of the membranes	22
	— 68

*" Lesions of other Organs.*

Chronic peripneumony	20
Phthisis	22
Chronic peritonitis	9
Chronic pleuritis	7
Chronic inflammation of the digestive canal	50
Other organic lesions of this viscus	13
Lesions of the liver	5
————— kidneys	3
————— ovaries	2
————— uterus	4
	—135
	203."

In the other fifty-six corpses, there was no visible evidence of disease in any of the viscera of the three great cavities. The spinal cord was examined in only two cases.

" From these dissections it follows: 1. That lesions of the brain, the organ of the intellectual functions, are in the proportion of one to two of those of the other viscera; 2. That more than one in five corpses of maniacs present no evidence of any disease whatever! 3. That, in a great majority of cases, the insanity was a sympathetic affection; and 4. That as, in more than a fifth of 259 dissections, no lesion or alteration could be detected, it strongly corroborates the opinion that, when such lesions or alterations are observed, they are posterior, and not anterior, to the development of the mental derangement." (P. 75.)

But, from whatever predisponent cause insanity may proceed, if it be not primarily an organic affection of the brain, it ends in being so. The author, though somewhat sceptical upon the subject, is still willing to concede that the evidence of BAYLE upon the pathological appearances detected in the brains of insane patients is respectable. Even this cold mark of confidence seems to proceed rather from politeness than sincerity; for in the next page Dr. Burrows remarks, " From his rapid career," (still speaking of Bayle,) " I fear a vivid imagination and fondness for theory are leading his judgment astray, and that, like the patients whose bodies he examines, he adopts illusions for realities." For our own parts, we candidly confess that *we* can place but little confidence in distinctions, which are established upon the supposition that it is possible to assign one set of symptoms to inflammation of the arachnoid membrane alone, and another in case the pia mater is affected conjointly with the arachnoid.

Although Dr. Burrows differs from the opinions of VOGEL, DUMAS, &c. that mania always proceeds from an inflamma-

tory state of the encephalon, yet he does not doubt that mental derangement is often the sequel of inflammation of the brain. That insanity is the effect of cerebral inflammation, he is persuaded is an error as dangerous as it is common. In his opinion, nothing is more clear than that the inflammatory and maniacal actions are totally distinct. He who will reflect upon the general condition of the patient,—upon the symptoms frequently exhibited during mania,—and upon the inefficiency, and even mischievous effects which arise but too commonly from the heedless and indiscriminate application of a mode of treatment destined merely to check inflammatory action, must, we apprehend, agree with Dr. Burrows in the doctrine he maintains upon this point.

The various hypotheses that have been suggested to prove that insanity is a disorder of the “peculiar and subtile fluid of the nerves,” are briefly considered. Dr. Burrows very wisely does not enter into the question of what may be the nature of the nervous power, or how it acts and connects us with the external world. But he considers it essential to deny that the proximate cause of delirium and insanity arises from a diseased action of the fine vessels which secrete and circulate the nervous fluid.

“It is to be lamented, when the doctrine of the secretion and operation of this fine and subtile nervous fluid circulating through the brain is exploded, that it should be revived as the true physiology of the organ of intelligence, without any new evidence or argument in support of it. Dr. F. Willis adopts the obsolete opinions of Cullen, Crichton, and Good, to prove the correctness of his own postulate, viz. that insanity depends on ‘a specific diseased action of those fine vessels that secrete the nervous fluid of the brain;’ but he is silent on the testimony of subsequent physiologists, who disprove, by experiment, the existence of this nervous fluid.” (P. 87.)

Although we know not the causes nor the mode by which sympathies act, yet we have abundant proof of their operation in originating diseases which reciprocally act on the mind.

“There is no organ with the morbid actions of which the functions of the brain so frequently sympathise as the liver. As the connexion is intimate, so is it reciprocal; for morbid actions of the former equally, and perhaps as frequently, disturb the functions of the latter. In importance, the functions of this organ are only second to those of the brain, as far as regards the operations of health; and as in the brain, so too in the liver, the circulation of the blood is complex, and very liable to be interrupted by extrinsic causes. Hence the greater facility of disturbing its functions.

“All the passions, anger especially, violently affecting the sen-

sorium, act immediately on the liver; and every excess that disturbs the functions of the stomach easily determines blood in undue proportion to the vena portarum, where, on account of the remoteness of this vessel from the heart, the motion of the blood is always sluggish, and therefore congestion is easily induced. The bile, consequently, is secreted in scanty quantities, the alimentary processes become ineffective, a morbid action of the connecting nerves follows, and the functions of the brain are implicated and disordered.

"Many facts attest that blows on the head will create, not simply disordered function, but disorganization of the liver; and, vice versâ, nothing is more common than instances of mental disturbance originating in injuries of this organ, or in secretions of morbid bile, or obstructions of the biliary ducts by gall-stones, spasm, &c.

"Diseases of the hepatic system will even originate delirium; furious mania, melancholy, and suicide.

"Insanity is much more common among the lowest classes than the supporters of its mental origin are inclined to admit. Now, drunkenness is certainly the great vice of this class in Great Britain and Ireland, and the propensity is gratified usually by ardent spirits. In a table of 1370 lunatics admitted into the Asylum at Cork, Dr. Hallaran says 160 were insane from this unhappy indulgence." (P. 93.)

A morbid condition of the chylopoietic viscera is, sympathetically, a frequent cause of mental derangement.

"Gastric irritation, too, is a much more frequent cause of mental derangement, through this mysterious agency, than is usually imagined. Long-continued nausea is often a precursor of a paroxysm of insanity. Violent nausea, also, from sea-sickness, continued for a few hours, has produced mania in three instances within my knowledge." (P. 95.)

Dr. Burrows has known insanity to arise, in two instances, from the irritation of cutting the dentes sapientiæ.

Commentary IV. contains many interesting observations upon the subject of hereditary predisposition, which too frequent experience instructs us is a prominent cause of mental derangement. ESQUIROL assigns only 150 out of 264 cases in his private practice to *hérédité*. Dr. Burrows has clearly ascertained that an hereditary predisposition existed in six-sevenths of the whole of his patients.

Commentary V. on the *Vascular and Nervous Systems*.—In this section it is the object of the author to examine if there be not ground to assume that the disorders of the sanguiferous system have as great, or greater, influence in originating insanity, than those of the nervous system. Dr. PARRY, in his *Elements of Pathology*, has very ably com-

mented upon this subject. But, unfortunately, this highly talented author almost totally neglects the influence of the nervous system upon the general economy. He states, indeed, in his preface, that "he utterly and for ever disclaims all reliance on the neurological systems of pathology hitherto extant." The practitioner, however, must neither entirely neglect the doctrines which are founded upon these systems, nor must he yield implicit confidence to those which maintain that the first encroachments of disease are to be sought for in the vascular apparatus alone. A very moderate knowledge of the general laws of the animal economy must convince us of the fact, that—

"Neither the vascular nor the nervous system can receive an insulated impression; for whether the irritation which an impression produces be applied either to the sanguiferous or lymphatic vessels, or the branches of nerves in connexion with them, both systems participate, and equally suffer. Thus we find alterations, or even disorganizations of structure, result from long-continued nervous complaints; and at length the parts so affected proceed to a state of erythism or sub-inflammation; and, finally, to the highest degree of excitement, or real inflammation." (P. 111.)

In most of the ancient authors we find observations, implying that irregularities occur in the sanguiferous system in all cerebral affections: and experiment and observation have proved that, although the sanguiferous and nervous systems are, as to their inherent powers, independent of each other, yet that they are intimately associated, and exert a mutual influence.

"All the precursory symptoms, as well as those on the actual access of mania, characterise a disorder in the circulation; as headache, or sense of distention; throbbing of the arteries supplying the head; tinnitus aurium; the eyes bloodshot, often prominent and shining; flushed face, and preternatural degree of heat of the scalp; while the extremities are cold, pulse hurried, &c. In some, these signs of accelerated circulation long continue; in others, they are observable only on the approach of a paroxysm, and gradually decline with it.

"A state of the congestion of the capillary and venous system is a consequence generally of too great determination; and is commonly conspicuous on dissection of the insane." (P. 116.)

It is important to remember that the irritability of a part is in a ratio with its vascularity. The brain must therefore be highly susceptible.

Commentary VI. *Disorders of the Circulation.*—There are two morbid conditions of the circulation, which, though directly opposed, immediately influence the intellectual functions, and which, whenever they exist, are manifest and



frequent causes of deranged intellect. First, when the blood is in quantity or momentum excessive; and, second, when the blood is in quantity or momentum defective. We would observe, for the benefit of those who are as yet upon the threshold of their professional avocations, that the latter condition of the vascular system claims as much of their attention as the former. It is too much the fashion of the modern school of pathology to instil into the minds of students that most, or perhaps all, diseases are to be attributed to increased momentum of blood.

Dr. Burrows confirms the fact mentioned by MASON COX, that there generally exists a degree of plethora about the heads of maniacs, and frequently when other parts of the system are in a state of exhaustion and debility. The experiments of Dr. Parry, by compressing the carotid arteries in various cerebral disorders, and of suspending the paroxysms of mania as long as the pressure was continued, prove the influence that the afflux of blood exerts upon the intellectual faculties. The good effects of tying the carotid artery on the side in pain, in the ordinary headache attended with throbbing of the carotids, has since been shewn by Sir ASTLEY COOPER and Mr. TRAVERS; and the results in some degree confirm those of Parry. In some recent cases of mania, attended by severe headache and evident determination of blood to the head, while pressure was continued on the carotids, Dr. Burrows found there was a partial suspension of the symptoms. In one young woman, liable to sudden and furious maniacal paroxysms, if the coming-on of the premonitory pulsation of the carotids were watched, and pressure by the thumb was applied, the paroxysm was either prevented or moderated.

In this and the succeeding Commentary, Dr. Burrows points out the various morbid conditions of the sanguiferous system, and their influence on the cerebral functions.

*Hemorrhagic discharges* form the subject of the eighth Commentary. From the age of HIPPOCRATES to the present, physicians have attached much importance in the cure of all cephalic affections, and of melancholia particularly, to hemorrhagic discharges from piles. The author can easily conceive that, in a constitution subject to periodical discharges of blood from the hemorrhoidal vessels, to suppress such discharge might sensibly affect the brain and disturb its functions, but he has never had any direct proof of insanity being induced from this cause.

"The opinion that a discharge of blood from piles often proves critical and removes insanity, I have never seen confirmed. From

the frequent reference to this disease by foreign writers, we may imagine that it is much more common abroad than in this country; and, if so, a wider field of experience may have offered examples of the cure of mental affections by a natural or artificial discharge of blood from the hemorrhoidal vessels, which does not present itself to British practitioners." (P. 149.)

It is of much importance to remember that "hemorrhagic fluxes, however, are not always proofs of plethora, or even of turgescence, of the sanguiferous system. Sometimes they import a deficiency of blood, or an attenuated condition of that fluid, from the effects of which a state of atony and fatuity may follow."

In the ninth Commentary, the author briefly refers to various diseases which are commonly complicated with insanity, as vertigo, epilepsy, convulsions, apoplexy, palsy, &c. From the general view he has taken of the physical phenomena of disordered intellect, apparent in the living and the dead, Dr. Burrows infers—

"1. That the circulating system, in every case of insanity, is morbidly, though often differently, affected.

"2. That the healthy exercise of the intellectual functions is dependent on a due regularity in the supply and momentum of blood to the brain, the source of the nervous system.

"3. That, while the vascular and nervous systems act in concert, the harmony of the intellectual functions is undisturbed.

"4. That, in all cases of insanity, the vascular and nervous systems are in a state of opposition.

"5. That, in incipient insanity, excitement of the vascular system generally predominates; in chronic insanity, the nervous.

"6. That, in all the diseases complicated with insanity, there is a well-marked ascendancy of either system.

"7. That, as the actions of the two systems approximate, improvement in the intellectual functions takes place; and that, when they again act in unison, sanity is reestablished." (P. 201.)

**Commentary X.**—The author has hitherto treated only of those disorders which have a fixed and tangible character, in which there is a visible disturbance both of the mental and corporeal functions. Mental derangement, however, is frequently produced in a more indirect and mysterious manner. Derangements of remote parts frequently occasion mental disturbance, by shifting morbid actions to the brain.

There are three modes through which the brain is morbidly affected by remote diseases, and insanity is induced.

"1. By metastasis, or translation.

"2. By sympathy;

"3. By conversion.

"These three modes of originating mental derangements have

hitherto been usually considered as one and the same, under the designation of sympathetic causes, and hence some confusion has arisen; but, in fact, they are distinct morbid actions.

"In metastasis, the part or texture primarily affected is completely freed when the morbid action originating in that part removes itself to another; but the morbid action may return again to its original seat, and leave the part secondarily affected free.

"In sympathy, the functions of an organ or part primarily deranged may remain permanently so, while those of a remote organ or part shall assume all the characters of the morbid action of the primary affection.

"In conversion, a disease shall leave a part or texture where it was situated, and another disease in some other part or texture is immediately superinduced." (P. 203.)

All morbid actions are susceptible of different modifications, and, when transferred to the brain, occasion different degrees and forms of delirium.

"The morbid action of organic diseases is often suddenly transferred to the brain, and occasions, while it lasts, a real delirium, to the complete suspension of the original disease; and the patient, from the last extremity of existence, becomes suddenly endowed with a degree of muscular power truly amazing. In this condition all the phenomena of insanity are developed. It may be continued for months; and, upon the sudden subsidence of the delirium, the original disease resumes its course, and the patient dies in a few hours or days. This frequently occurs in pulmonary consumption.

"Aretæus notices the propensity in phthisis to induce insanity; and Mead has observed, that there appears an interchangeable relation between lunacy and phthisis pulmonalis; the latter, being cured by the accession of the former, and recurring as soon as the brain resumes its natural functions.

"In the last stage of consumption, a delirium is apt to come on; and I have several times been called to visit a patient in this state, from an impression in his own opinion that he was insane. But I have invariably found this symptom a certain indication of approaching death!" (P. 206.)

The result of our observations would lead us to doubt the frequent occurrence of insanity during the progress of pulmonary consumption. On the contrary, we believe that consumptive patients usually retain full possession of their mental powers until the last moments of their existence. The temporary delirium that occasionally arises during the continuance of a high state of hectic fever is totally distinct from insanity; and this is the only affection of the mind which we have witnessed in pulmonary consumption.

One interesting case has occurred to us, in which insanity.

proceeded from the rash suppression of chronic diarrhoea. It should be observed, however, that opium was the remedy employed. Dr. Burrows relates the following analogous example:

"A gentleman, aged seventy, of a very delicate constitution and most temperate habits, had for two or three years, notwithstanding the best medical advice and the most careful conduct, been subject to constant colliquative diarrhoea.

"At length he was so reduced as to be given over, and his death was hourly expected. By way of affording him present comfort, a much larger dose of opium than he had ever taken, mixed with a powerful astringent, was given him. It effectually stopped the purging. He took plenty of nutriment, and gradually recovered his strength; but, as he grew stronger, a total change in his moral character was observed. I had known him many years. His disposition, before even, meek, and remarkably correct and modest, became turbulent, noisy, extravagant, and obscene; and he laboured under the most extraordinary and ludicrous delusions. He lived seven years in this changed condition. At length his bowels became very lax again, and he gradually wasted from the effects of it. But probably the morbid action of the brain had been so long continued as to produce some organic change, for the character of his delirium was unaltered till his last breath. He died in my presence, humming the tune of an old ballad." (P. 209.)

In this case, the author observes, "that the morbid irritation of the bowels was evidently transferred to the brain." It is not, we think, improbable that the large dose of opium which was exhibited had also some share in causing the mental derangement.

It is a well-established physiological fact, that a primary disease or injury of the brain may induce affections of other organs; and, on the contrary, that the brain may be morbidly affected by a diseased action of remote parts.

"In adverting to the causes of insanity, the possibility of such remote and obscure actions should always be borne in mind; for these reciprocal sympathies have a most powerful and extensive influence in originating and transferring morbid actions; and whether the intellectual derangement be primary or secondary, it is of the utmost importance to ascertain.

"The origin and affinities of morbid sympathies are the most obscure of nature's operations; and, like the essence of the intelligent principle, still, and for ever probably will, remain enveloped in mystery. Inscrutable, however, as the sources and connexions of these affections may be, still, as insanity is frequently to be traced to the latent influence they exercise on the human system, the doctrine and effects of sympathy claim ampler notice." (P. 210.)

Abcesses of the liver, are noticed by many authors as consequent on injuries of the head. The passage of gall-stones is sometimes attended with a long delirium, which, from its continuance, might be mistaken for insanity.

About nine years ago, the wife of a medical friend continued for two months in a state of delirium so entire, that a ray of reason did not break in. There was great restlessness, with quick pulse, dry skin; the tongue dry, brown, and furred; and she became much emaciated. When reason began to dawn, she expressed an earnest desire to be left alone that night, as she was convinced, if not disturbed by others, she should have some sound rest. Her request was complied with, and she slept uninterruptedly fifteen hours. She awoke amazingly refreshed; and from that moment her mental and bodily health rapidly recovered. She then went into the country, where she remained two months, and returned home lusty, and in excellent health. Three days after she returned she was seized with vomiting, which lasted for many hours. On the following day she took an aperient, during the operation of which she experienced a distinct sensation, as if something had given way in her right side. The succeeding morning she had a natural evacuation of the bowels; and, upon examining the contents, she discovered two singularly large gall-stones. These I examined minutely; one weighed three drachms, the circumference was three inches, and the length one inch and a quarter; the other weighed ninety-two grains and a half, and the circumference was two inches and a half, and the length one inch and an eighth. She has since experienced no return of her complaints.

"The mental derangement in this case was probably kept up during the two months, when there were symptoms indicative of the inflammation which the passing of such comparatively large masses must have occasioned."

"As delirium supervened on the commencement of the attack, she was of course incapable of accurately describing the seat of her sufferings. The cause, therefore, was not suspected, till discovered by the patient's own sensations, and examination of her dejections."

"This case forcibly illustrates the necessity of watching most minutely every sign and expression indicative of bodily pain, as well as of disordered function, in cases attended by delirium." (P. 213.)

Furious madness is sometimes produced by irritation mechanically applied to a remote part. HUBERLAND mentions a boy, between thirteen and fourteen years of age, who suddenly began to talk in a very wild and incoherent way, and at length became ungovernable,

"This state was assuaged by soporifics. But the paroxysm was observed to recur whenever he was placed on his feet. On examination, a reddish spot was noticed in one foot, which, when

pressed, always occasioned a fresh paroxysm. Upon an incision being made, a minute piece of glass was discovered and extracted. During the operation the patient was furious; but every symptom of violence vanished when the offending cause was removed." (P. 246.)

*Conversion.*—The diseases which frequently interchange with insanity, are those in which the circulation is obviously disordered; as in various forms of idiopathic fever, apoplexy, hemiplegia, epilepsy, convulsions, cephalic and comatose affections, hemorrhagic and hydropic complaints, gout, rheumatism, phthisis, asthma, &c. All these diseases may alternate with mania, or with each other,

The opinion has generally prevailed that lunatics are insensible to atmospheric changes and impressions. Dr. Burrows correctly maintains that experience proves that such patients are by no means insusceptible of the extremes of temperature. He observes—

"I confess it is quite wonderful to me how it could have escaped observation, as I suppose it must, that lunatics, especially melancholics, are commonly subject to an extremely languid circulation in the lower extremities; and therefore, without extraordinary care, must of course suffer greatly from cold.

Extremes of heat and cold are not only in themselves causes of insanity, but sensibly affect both the bodily and mental state of lunatics. In whatever asylum the patients are treated under the conviction that they are insensible of cold, there, assuredly, mortification of the extremities will be common. In most of the British lunatic asylums, which I have inspected since the year 1821, I found proper care taken to prevent injury from cold. Indeed, I had frequent occasion to remark that the day-rooms were sometimes too much heated, so that, when the patients went from those rooms into the galleries and airing grounds, the atmospheric change was too great, and hence catarrhal, ophthalmic, and rheumatic affections were induced. But in others the patients were by no means sufficiently protected from the effects of cold, and, as might be expected, I there found mortification of the extremities less rare." (P. 230.)

Mortification of the extremities, however, is not always the simple effect of exposure to cold, or of neglect. The author has met with instances of it in private practice, which he has attributed to that diminution of the vital principle which he has noticed to be so often conspicuous in the constitution of persons in whom the influence of the intelligent principle is deteriorated. He quotes two examples.

In the thirteenth Commentary, Dr. Burrows offers a few observations upon the influence of climate, occupation, sex, and age, on insanity. He mentions many facts which induce

him to conclude that it is not climate, but a high temperature, which disposes the intellectual functions to derangement.

We now arrive at the second part of the volume; the first section of which treats of the *Division of Insanity*. The definition of the various forms of insanity is a tempting inducement for an author to enter into fanciful, and, as far as regards practical purposes, useless speculations. Dr. Barrows, however, is not to be led away from the purpose he professes. Practical improvement is the object of his work. Definitions of the morbid phenomena of mind he would leave to schoolmen, who love to indulge in subtleties. He confines himself to a simple division of the most conspicuous and ordinary forms in which insanity appears, and he considers that the best rule for every body to observe, when attempting to form a judgment on any particular case of insanity, is to take care and preserve his own faculties clear, and as free from the mysticism of speculative philosophy as from the trammels of nosology. He might have added, that it is the duty of the practitioner to approach the consideration of every other disease with the same free and unshackled spirit of inquiry. The efficacy of our practice can never depend upon our knowledge of the abstract, and too often fanciful, arrangements of diseases which have been adopted by nosologists. For the convenience of discussion, however, as well as for practical purposes, some arrangement must be followed. Dr. Barrows considers Esquirol's the least objectionable, because the most unpretending and simple.

But it is defective; since it omits delirium and hypochondriasis, which, in my judgment, have better claims to be considered as distinct species than mania and melancholia. It is true, if delirium be received only in its ordinary acceptance as symbolical of intellectual disorder, it does not merit the rank of a distinct malady. But I think that there is ground to consider it as a frequent idiopathic affection, though certainly much more generally as sympathetic, and often as symptomatic. This point, however, I shall discuss more at length when treating on delirium.

"The order I shall adopt, therefore, is, 1. Insanity; 1. Delirium; delirium tremens. 2. Mania; puerperal insanity. 3. Melancholia; suicide. 4. Hypochondriasis. 5. Demency. 6. Idiocy. (P. 268.)

Commentary II. *Character of Insanity*.—In the common acceptance, that person is insane or mad, or in a delirium, when any single, or several faculties which synthetically constitute the mind, exhibit signs of disordered function. Madness, says SAVVAGES, is the dream of him who is awake; and—

"This waking dream may consist in an unnatural rapidity of thoughts, or in a morbid association of them with some known, or recollected object, or in the substitution of illusions for realities. Sometimes perception is correct, but memory and judgment are defective; or the reverse may obtain.

"Sometimes sensation and volition are equally affected: one, or several, of the external senses shall be perfect, and the others changed; and sometimes all are implicated, or the mind and the will may be at variance. Every sensation, thought, or idea, may have place; but have neither order, object, connexion, or stability. Neither, though they perceive and think, can the insane always connect, compare, or abstract. These must be received as general propositions, but with exceptions. For instance, the faculty of associating their ideas with words and things, and of applying them to their own situations, so as to combine and execute plans, is sometimes exhibited in a manner most correct and wonderful. Often the most trivial thing will induce certain ideas, which at their birth are correct; but, the judgment being leered or perverted, the catenation is broken, their application mistaken, and the most wild and incoherent thoughts, expressions, and actions follow.

"Hence impressions may be either strong or weak: the mind in the one case pertinaciously adhering to one illusion, to the exclusion of every other idea; in the other, the delusive impression is so evanescent as to induce us to presume that the memory is impaired; and yet hereafter the last idea may revive, and recur with vivid force.

"Sometimes the attention to internal feelings supersedes that to all external objects, or the reverse; or one faculty may acquire such an excessive acuteness, while the others retain their natural condition, that such a preponderance of the trains of thought and actions connected with the objects of that sense ensues, as constitutes insanity." (P. 261.)

One or several of the exterior senses are usually obtunded, perverted, depraved, or alienated. The sense of hearing usually suffers the first and most. Melancholics are sometimes so wholly abstracted that it is quite impossible to discover from them the nature of their hallucination, or any thing in which they ever took an interest.

PINEL refers to a variety of insanity which is very common, and which he denominates *folie raisonnée*, reasoning madness. It is marked by a propriety of ideas, and a sort of judgment very imposing.

"The patient can read, write, and reflect, as if he possessed a sound mind; and yet is at the same time capable of the most outrageous violence, or will tear every thing to pieces that comes in his way; or his insanity may shew itself simply in general profusion, in dress, and other extravagances. It is this variety of



insanity, and power of self-possession, which so often deceives the inexperienced, who do not recollect that sanity or insanity of mind cannot always be detected in conversation, which is often very plausible, and apparently correct. The delirium in this case shews itself in conduct, and not in speech, and is very difficult to discover.

Again, the same author designates another variety, *mania sans délire*, (mania without delirium,) in which there is no sensible alteration in the functions of the understanding, as perception, judgment, imagination, memory, &c.; but yet there is a blind impulse to acts of violence, or even to sanguinary fury. This state he ascribes to a perversion of the affective functions." (P. 267.)

In the opinion of Dr. Burrows, this is both an absurd and a dangerous distinction. It is absurd, because he who can perpetrate such acts, and yet be in possession of all these faculties, is neither in a delirium nor mad. It is dangerous, because any enormity might be committed, and the perpetrator plead this form of insanity, and hold himself irresponsible for his actions.

We cannot dwell upon the innumerable visions which in different cases haunt the imagination of insane patients. The symptoms of corporeal derangement which precede or accompany the state of insanity demand our utmost attention. Fever has been said by some modern authors, as Drs. HALLARAN, F. WILLIS, &c. to be the accompaniment of mental derangement. Dr. Burrows, however, has never seen a case of pure mania or melancholia accompanied by real pyrexia, except when some other acute affection attended, of which the fever was a symptom. Lunatics are usually costive; but this is often more the effect of indolence or disregard of natural calls, than from torpor of the intestinal canal. An opposite impression has induced the exhibition of violent cathartics in almost all cases, and often to the great distress and injury of the patient. The insane are generally unconscious of their condition; sometimes, however, the contrary is the fact, but yet they are most artful in concealing it. Others confess and lament it feelingly, and still cannot repress the propensity to make irrational proposals, or do any ridiculous thing, or commit suicide or some other kind of violence.

"A lady, of good family and of most amiable character, aged forty-eight, with an hereditary predisposition, and who had been insane about twenty-five years before, became a good deal affected from a younger sister having suddenly manifested insanity. Shortly it was necessary to confine the elder to her room for the same cause. In a few days the younger sister, for want of due precaution, destroyed herself. The fact was concealed from the elder

sister; but she likewise betrayed a suicidal propensity. She confessed the feeling, and reasoned upon it as an aberration of her mind, and as sinful, and entreated not to be trusted. In fact, she made many attempts on her life. She had many other delusions; one of which was, that another woman was within her, and prompted her insane ideas and actions. At times she was highly excited, and would dance on the tables and chairs, tear her linen, and bite those about her, if permitted; and, from her language, a slight degree of nymphomania might be suspected. It was quite distressing to hear the occasional expression of her deep sorrow that she was unable to control her impious and immoral feelings, and extravagant actions.

"Such cases demand the greatest care, and the kindest consideration." (P. 274.)

Insanity may be continued, remit, or intermit, but it is observed under no form or regular crisis. An effort, however, seems sometimes to be made by nature to throw off the influential cause. "We often find that the formation and discharge of an abscess, especially of scrofulous glands, the appearance of a cutaneous eruption, a fit of gout, or an hydropic effusion, will terminate long-continued mental derangement." Many other phenomena present themselves, and mark the physical and moral characters of disordered intellect. Some require particular attention, such as physiognomy, position, sensation, muscular powers, fasting, odour. Upon each of these subjects Dr. Burrows briefly comments.

[To be continued.]

*Observations on the Nature and Treatment of Fractures of the upper third of the Thigh-bone, and of Fractures of long standing; shewing that Fractures of the Neck of the Femur, and others which occur in the upper third of this Bone, admit of being united, so as to restore the Natural Powers of the Limb, without Deformity or Lameness; also, that the principal Cause which prevents Fractures of the long Bones from uniting is attributable to the inadequacy of the usual Modes of Treatment; and that Fractures which have existed many Months might generally be united by the proper Employment of Mechanical Means alone, with almost as much facility as simple Fractures in the recent state. Illustrated by Cases obtained from Public and Private Practice.* By JOSEPH AMESBURY, Consulting Surgeon to the Royal Union Association; Surgeon to the South London Dispensary; Lecturer on Surgery, &c.—8vo. pp. 315. Plates. T. and G. Underwood, London, 1828.

THE mechanical ingenuity which enables Mr. AMESBURY to contrive his apparatus for the treatment of different fractures, and the professional dexterity with which he applies them, have for some time been known and duly appreciated by his

surgical brethren. In the present volume the author has entered, at some length, into the consideration of the nature and treatment of fractures of the upper third of the thigh-bone, and of fractures of long standing which occur in the upper and lower extremities; and it is his object to shew that deformity and non-union are more to be attributed to the imperfect modes of treatment still generally advised, than to any other cause. Many of the cases adduced to illustrate the views and treatment of the author have been conducted in public hospitals, through the kindness of the surgeons under whom they were admitted.

Mr. Amesbury has found it necessary, in the course of his inquiries, to condemn some doctrines and plans which are now much recommended and pursued. He hopes, however, he might regard the surgeon as his friend, and at the same time oppose such of his principles and practice as seem to be objectionable. We hope so too; for in the free statement of his opinions he does but perform an imperative duty to the public. But we much fear that not unfrequently the slightest opposition even upon practical subjects, particularly if the discrepancy of opinion be publicly stated, leads to something approaching to hostile feelings, which from such a cause ought certainly never to enter the breast of any man who is sincerely and liberally devoted to his profession, and who regards it not merely as a trade by which a certain quantity of money may be obtained, but as a philanthropic pursuit in which the general interests of humanity are concerned. We have been led into this observation from having more than once observed the hasty and discreditable resentment which has been kindled even by the most temperately stated objections to opinions upon professional subjects.

The author commences his work with a description of the causes, symptoms, and nature of fractures of the upper third of the thigh-bone. Sir ASTLEY COOPER has divided fractures of the neck of the thigh-bone into two kinds: those within the capsular ligament, and those external to it. Mr. Amesbury proposes a subdivision of each of these kinds. Those fractures which occur entirely within the synovial capsule might be divided into fractures without any considerable laceration of the close coverings of the neck of the bone, and into fractures accompanied with an extensive laceration, or complete division of these coverings. Fractures external to the capsule might also be divided into two kinds; one of which is accompanied with little or no laceration of the investing soft parts, and the other with great laceration or complete division of them." The neck of the thigh-bone

may also be partially or completely broken through. Incomplete or complete fractures may be transverse, oblique, or comminuted. The author observes, that some surgeons might be inclined to doubt the possibility of fractures occurring within the synovial capsule, without any considerable laceration of the close coverings, in consequence of their tenuity. "*From analogy*, we are led to believe that fractures of the neck of the thigh-bone within the capsule may take place without any considerable division of the periosteum and reflected membrane, because we find that fractures occur in other situations with but little laceration of the periosteum." The inference drawn from experiments after death appears to us scarcely admissible. But Mr. Amesbury appeals to the satisfactory evidence of facts. In one instance he had an opportunity of seeing a fracture of this kind, the patient having died from organic disease a short time after the accident.

In old people, fractures of the neck of the thigh-bone occur from very slight causes, and the diagnosis of such injury, when unaccompanied with laceration, is extremely difficult. As far as Mr. A. has been able to determine, the symptoms which accompany these injuries are few, and by no means prominent.

"Notwithstanding the existence of a fracture of this description, the patient might be able to exert considerable power in the limb. He might be able to bend it upon the pelvis, or to roll it inward, immediately after the accident: not, however, without giving himself pain. There is but little or no shortening of the limb. The foot may or may not be everted. We may or may not be able to elicit crepitus. Hence it will appear that the two most striking symptoms which accompany a fracture of the cervix femoris with laceration do not exist, or at most very slightly, while the close coverings remain entire, and the neck of the bone continues of its natural length. The reason of this will immediately appear, when we consider that the retentive power of the periosteum and reflected membrane being entire, or nearly so, prevents the fractured ends from being much displaced, and at the same time, in a very great measure, prevents eversion of the foot; and, in consequence of the great facility with which the head of the bone moves in the acetabulum, crepitus will seldom be produced. In order that the crepitus of fracture should be rendered evident, it is necessary that the broken surfaces should be made to rub upon each other. This cannot sometimes be done, in these accidents, without much difficulty; for the head of the bone moves readily in the acetabulum, upon receiving the slightest impulse; and this motion of the head of the bone cannot always be restrained, especially when the investing membranes are but little torn: consequently, when the

shaft of the bone is moved, the head of the bone commonly moves with it simultaneously; and when this is the case, in the same relative degree, crepitation is never felt." (P. 8.)

As the symptoms of this accident are confessedly obscure, much attention must be paid to the history of the case.

"A great and sudden diminution of power in the limb, referred principally to its upper and inner part, and occurring immediately after the infliction of an injury of that description which usually produces fracture of this part, must be regarded as a symptom of considerable importance. There is tenderness in the joint, and some pain experienced in the soft parts in the direction of the pectineus muscle and the tendon of the psoas magnus and iliacus internus, and sometimes in the hollow behind the trochanter. The patient may be able to turn the limb inward or outward; he may be able to bend it upon the pelvis, but not without pain, and a remarkable sense of weakness in the joint. The close coverings may yield so as to allow of slight eversion and slight shortening of the limb. The swelling in these accidents is not likely to be great, unless the surrounding parts are much injured by the blow, or other force, which occasioned the fracture. That which occurs is confined principally to the joint. When these symptoms exist, we might, I think, fairly suspect the existence of a fracture; but, in order to make ourselves more certain, we should examine the limb very attentively. This should be done, however, with the utmost caution." (P. 9.)

As the mode in which the manual examination is conducted might materially influence the result of the case, particular directions are given upon this important point. Crepitus, which must be regarded as the most unequivocal sign of fracture, may or may not be produced.

The author next proceeds to inquire into the manner in which the parts are nourished, both before and after the accident, and to point out the difference between a fracture of the cervix femoris within the synovial capsule, when unaccompanied with laceration of the close coverings, and a fracture of the middle of the bone, as far as it regards the reparative process. When fracture of the cervix femoris occurs, many of the vessels which, in the natural state, support the pelvic portion of the bone, must necessarily be destroyed. Upon this subject the author makes many very pertinent observations. We are not aware, however, that any thing new is added to the information we previously possessed upon this point.

He next enters upon the question of whether such unavoidable division of the vessels is sufficient to prevent osseous union. He thinks not. Neither does he conceive that the presence of synovia between the fractured surfaces, upon

which by various authorities much stress has, we believe, been laid, is sufficient to prevent union by bony deposit. In other situations, it is argued, the presence of synovia between the fractured surfaces is easily overcome, and an osseous union of the injured parts is not prevented.

"It appears to me that, as far as regards the physical or vital condition of the parts, there is only one circumstance which in any way tends to make the prognosis more unfavorable in fractures of the neck of the thigh-bone within the synovial capsule, when the close coverings are but little injured, than in fractures extending into other joints, which is the division of the arteries that go to the head of the bone, through the substance of the neck; and this is not, in my opinion, sufficient to render it physically impossible that union should take place." (P. 22.)

From the view, in fact, which Mr. Amesbury takes of the subject, the cause of want of union in such cases is not physical, but mechanical: "the fault lies at the door of surgery, and not in the nature of the accident." He fears that the close coverings of the head of the bone, the periosteum and reflected membrane, through which nourishment must principally be conveyed to the head of the femur, are sometimes lacerated after the accident, either by the incaution of the patient or want of skill in the surgeon. This has, indeed, been observed by several surgeons. If, from whatever cause it may happen, the periosteum and reflected membrane are injured after the infliction of the injury, the case is then converted into the state of a fracture very unfavorable for bony union, in which, from the first, the close coverings of the bone are nearly or quite divided.

To this more perplexing kind of accident Mr. A. now directs his attention. He points out the causes and symptoms of these fractures. Even in such cases he does not despair of success; and he therefore stands opposed to many high authorities, whose doctrines he critically examines at some length.

"If (he says) the treatment be good, I am inclined to believe a sufficient number of facts, to prove that union cannot generally be produced in these cases, when properly managed, will never be obtained. I have been led to this opinion by the consideration that, though the periosteum and reflected membrane be completely divided, and the head of the bone consequently deprived of the principal part of the nourishment naturally sent to it, a vascular communication is again speedily reestablished by the production of organized matter, which, after a time, has the resemblance of ligament connecting the fractured ends together. This ligamentous substance is often found extending, in broad bands, from the head of the bone to that portion of the neck which is attached to

the trochanters or to the capsular ligament, with which it becomes firmly united. This soft substance also frequently exists between the fractured surfaces, filling up, in a great measure, the breach of bony continuity; and thus, at the same time that it prevents their further separation, it assists in conveying nourishment to the pelvic portion. Where this soft union has taken place, it is probable that the head of the bone is nearly, perhaps quite as well, nourished as when a fracture exists without laceration of the periosteum and reflected membrane, before any other vascular connexion is established between the fractured surfaces than that which is given by these coverings. And, therefore, if this be granted, as far as regards the supply of blood to the pelvic portion, fractures with laceration very soon become placed under circumstances nearly as favorable for the production of callus as where the close coverings are not much torn; a fact which, it appears, has been altogether overlooked by the supporters of non-union; and one which strongly militates against the opinion that want of nourishment in the head of the bone is the principal cause of these fractures having hitherto been so seldom found united." (P. 60.)

The author, in short, infers, that the physical condition of the fractured ends, upon which Sir Astley Cooper founds his principal argument in favor of the opinions he entertains, is not in itself sufficient to account for the hitherto almost constant occurrence of non-union when the fracture is within the capsule of the hip-joint. He does not consider absorption of the cervix femoris as a necessary consequence of fracture of the part. He would rather attribute the shortening of the neck of the bone, which so frequently takes place, to irritation occasioned in the injured parts by frequent motion and unnatural pressure, which none of the usual modes of practice is calculated to prevent.

"If, then, I am right in the opinion that absorption of the cervix femoris is not a necessary result of a fracture of this part, but is commonly produced in consequence of the irritation which is kept up in the joint, especially by that portion of the neck which is attached to the shaft, it will be seen that, if the fractured surfaces were brought together and kept at rest, such irritation would not take place; and, therefore, that absorption of the neck might be prevented by any contrivance capable of fixing the broken ends of the bone, so as to prevent them from moving upon each other. According to this view of the subject, we might conclude that absorption of the neck of the bone is probably referrible to the imperfection of the treatment usually resorted to as a remote cause, and not to any law of nature peculiar to this part." (P. 69.)

As it is probable, Mr. A. contends, that bony union might frequently be produced, fractures of the neck of the femur should not be abandoned till proper means have been employed.

"From what I have myself observed, and from what I have been able to collect from the observations of others, I am led to believe that the causes of non-union, in fractures of the description above mentioned are four, three of which have been noticed by Sir A. Cooper: 1st, A diminution in the quantity of blood sent to the pelvic portion of the bone; 2d, absence of continued pressure; 3d, want of apposition; and 4th, want of rest. The first of these is inseparable from the nature of these cases, but, in my opinion, is to be regarded as the least important; for, though this will have an influence in retarding the uniting process, as I have above stated, I believe that there is now sufficient proof to lead to the conclusion that it is not in itself sufficient to prevent osseous union from being accomplished. The other three causes are referrible to the treatment; and if it can be shewn that we are in possession of mechanical means, by the judicious employment of which, apposition, pressure, and rest might be maintained for any length of time, these three causes, it is evident, will be at once removed; and, as union by bone now and then takes place notwithstanding the operation of these three causes, we might, it seems to me, reasonably expect that it will be very generally produced where the treatment is such as to prevent their occurrence." (P. 75.)

It is confessed that even from the best treatment success cannot be insured. But before the author could become an advocate for the practice of abandoning fractures of the cervix within the capsule, he would very properly require that those surgeons who support it should prove that no advantage is to be derived from mechanical means. They must also shew that there are unequivocal symptoms by which a fracture of this part of the bone can be distinguished, in every instance, from one external to the joint. This he conceives not to be the case.

Pursuing the argument, Mr. A. further remarks, that if fractures within the capsule could not be united by osseous matter, there is no reason why the opposing ends should not be connected by a layer of short ligament, under proper treatment. The advantages of such an union are pointed out. A great object in such cases is to have the ligament as strong as possible; and for this purpose it will be necessary to confine the patient nearly, or quite, as long as would be requisite to effect union by bone.

In the next section, many good practical observations are offered upon fractures of the neck of the femur external to the capsule, without considerable laceration of the periosteum; and, in section 5, Mr. Amesbury considers the same kind of injury to the bone, *with* great laceration of the surrounding parts.



When the fracture is not attended with laceration, the symptoms are so similar to those which are observed when the bone is broken within the capsule, without much injury to the close coverings, that it will be frequently found difficult to distinguish them. The best surgeons may here fail in their diagnosis. When there is great laceration of the surrounding parts, the symptoms are much more strongly marked. The eversion and retraction of the limb are very evident. The degree of shortening is usually proportionate to the degree of laceration. In this variety of fracture, however, it is commonly from half an inch to an inch; seldom exceeding an inch. We have also generally considerable tumefaction of the surrounding parts, with ecchymosis. This very rarely occurs when the fracture is entirely within the synovial membrane.

Fractures external to the capsule are occasionally accompanied with *inversion* of the foot. In these cases the fracture of the cervix has been found complicated with fracture of the trochanter. Mr. GUTHRIE has detailed an instance which tends to illustrate the causes which give rise to this position of the limb. The following is Mr. Guthrie's case:\*

" Sarah Gibson, æt. ninety, fell, on the 9th January, from a high stool on which she was sitting, upon the left hip, and, being a heavy woman, suffered considerable injury. I saw her two days afterwards, with Mr. Dillon, of Judd-street, and found the marks of considerable contusion having been sustained by the part, which was very painful and swelled. The limb was rather more than half an inch shorter than the other, and the great toe turned inwards in a manner sufficiently marked, although not quite so decidedly as in a case of dislocation. The limb was moveable in every direction, but these motions were attended by considerable pain, and it could be easily extended to the same length as the other. No crepitus could be distinguished. The patient died on the 22d February, forty-four days after the accident; and, on dissection, a fracture was discovered external to the capsular ligament. The little trochanter was broken off, and with it the attachment of the psoas and iliacus muscles. The head and neck of the femur were separated from the shaft by a diagonal fracture, extending from the upper and outer part of the trochanter major to the trochanter minor, so as to leave the insertions of the pyramiformis, gemellus, obturator externus and internus, and quadratus, with the head and neck of the bone. The gluteus medius formed a bond of union at the upper part of the trochanter major, between the broken pieces retaining them in contact. The capsular ligament was not injured, and no steps whatever appeared to have

\* Med.-Chir. Transactions, vol. xiii.

been commenced to repair the mischief which had been committed." (P. 95.)

The causes, symptoms, &c. of fractures of the trochanter major, are described in the next section. The prognosis in such cases is favorable: whether attended with a fracture of the neck of the bone or not, they usually unite; and, where there is not comminution, the author believes, with proper management, union may be effected without deformity of the limb. Now and then the injury sustained is so great as to destroy life, especially in old people.

Chapter ii. *Treatment of Fractures of the upper third of the Thigh-bone.*—Before the author points out the mode of practice peculiar to himself, he passes in review the various means ordinarily employed by other surgeons; each of which he deems, if not objectionable, at least insufficient for the completion of the intent for which they are used. For, although the deformity in some instances is not great, cases of union without deformity are rarely seen.

First, of the treatment of fractures of the cervix femoris.—After the active inflammation is reduced, medicines internally are not required, except with a view to remove disease, or to maintain the health of the patient. Aperients, topical bleedings in moderation, and evaporating lotions, will be required to diminish inflammation. The principal part of the treatment is mechanical, and this is the same whatever may be the situation or nature of the fracture. The time necessary for the completion of osseous union will vary.

"The indications to be answered in the mechanical part of the treatment of fractures of the cervix femoris, whether within or external to the joint, are, 1st, to keep the limb of its natural length; 2d, to keep the limb in the bent position; 3d, to prevent eversion or inversion of the foot; 4th, to keep the trochanter a little raised; 5th, to keep the fractured surfaces in close apposition; 6th, to prevent the fractured surfaces from moving upon each other." (P. 114.)

We must pass over Mr. Amesbury's critical examination of the practice of DESAULT, BOYER, SIR ASTLEY COOPER, EARLE, &c. He has attempted to supply the deficiencies in the ordinary modes of treatment by constructing an apparatus which he employs in the management of fractures of the upper part of the thigh-bone, and for various other purposes.

"This apparatus I call a fracture-bed, which, when properly fitted up, consists of a frame which has a joint near the middle, and which is made to support four pieces of board, long enough, when connected, for an adult to rest upon in the extended position; of a foot board, pelvis strap, mattress, and a convenience to

receive the feces. The two pieces of board which form the middle plane are made to slide upon each other, so that this plane might be adapted and fixed by screws attached to it, with the greatest accuracy, to the natural length of the patient's thighs. In this plane there is an opening of a form and size to receive the receptacle for the feces. When the receptacle is in the hole, it is retained in its proper position by a shelf, which shuts up so as to close the opening when the receptacle is removed. This plane is connected to the upper and lower planes by rule joints; which allow the three planes to be placed in connexion upon the frame, at any angles that might be required. The joint formed by the middle and upper planes rests upon the middle of the frame when the bed is used. The upper plane may be kept raised from the frame, so as to incline towards the foot of the bed, by means of a supporter appended to its under surface. The loose ends of this supporter are received in racks formed in the upper end of the sides of the frame. At the lower end of this plane the pelvis strap is attached. The lower end of the lower plane is received in racks formed in the sides of the lower end of the frame, which support it so as to make it form with the middle plane any angle that the surgeon might deem advisable. The foot board, which is connected to the lower end of this plane, answers the double purpose of retaining the foot in its proper position, and of keeping the bed-clothes from pressing unpleasantly upon the toes. The mattress consists of two portions, which are sown together, so as to form a joint like that of a palliasse. The part upon which the trunk rests is double the thickness of that upon which the lower extremities are placed." (P. 132.)

In several important particulars, Mr. A. remarks, this fracture-bed differs from Mr. Earle's. The particular mode in which it is to be applied is minutely described. Cases are also detailed illustrative of the facility with which fractures of the neck of the thigh-bone may be managed by the use of it.

Excepting in a few minor particulars, the treatment of fractures of the trochanters major and minor, which is next discussed, does not differ from the same kind of injury of the neck of the femur.

**Part II. *Fractures of long standing.***—Such cases are met with at all periods of life. The causes of non-union are constitutional, constitutional and local jointly, or purely local. Amongst the former may be enumerated various diseases greatly disturbing the system, natural debility, or acquired by debauchery, &c. In pregnancy, there is frequently much disturbance of the whole system, which may either retard or prevent the union of a fracture. The local causes are many, such as disease in the bone, want of apposition, diminished

action from the improper continuance of cooling or sedative lotions, want of rest.

Again Mr. Amesbury feels himself called upon to disapprove of the ordinary practice. "I should say that the cause of death in nine cases out of ten, resulting after compound fractures and compound dislocations, might be fairly attributed to the inadequacy of the mechanical treatment." This is, indeed, a very sweeping reprehension, and we hope and trust that, in the author's zeal for improvement, he has a little exaggerated the evils he purposes to remedy. He justly asserts, that if the broken ends of bones are displaced by the involuntary action of the muscles, it is the fault of the treatment: and yet this is a very common excuse for deformity.

When fractures of long standing are examined, the ends of the bone are sometimes found connected together by a structure resembling ligament, or by a ligamento-cartilaginous structure. Sometimes the fractured ends are enlarged from a deposition of bone around their edges, and are connected together by a preternatural capsule, containing a fluid resembling synovia.

Having animadverted upon the different modes of treatment commonly adopted for the purpose of producing an union in fractures of long standing, which it is well known are generally unsuccessful, and frequently unsafe, the author details the plan he has himself employed with advantage. It consists principally in skilfully applying local pressure and rest. For the detailed account of it we must refer to the work itself, where its superiority is made very manifest by its striking success in many cases which are related, and in which other means had either totally or partially failed, even under the hands of justly celebrated surgeons.

The volume concludes with some practical observations upon the treatment of fractures of long standing, which do not admit of being united by the influence of pressure and rest alone.

Every practical surgeon must be much interested in the perusal of Mr. Amesbury's book. If it should be thought that he sometimes too unreservedly canvasses the opinions and treatment of his chirurgical brethren, let it be remembered that, if his "phrase is bold, his arguments are strong."

## COLLECTANEA.

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Floriferis ut apes in saltibus omnia libant,  
Omnia nos, ltidem, depascimur aurea dicta.

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## ANATOMY.

*Vision of Moles.*—Moles are generally supposed to be deprived of vision, M. GEOFFROY DE ST. HILAIRE has discovered the nerve of vision, which he demonstrated at a recent meeting of the Academie de Medicine.—*Echo de Paris.*

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## PATHOLOGY.

*Softening and Perforation of the Stomach.*—In the following case, the stomach was softened throughout the greater part of its surface, but especially on the left half. The attenuation and want of cohesion were so remarkable in some parts, that the serous membrane alone remained, and the slightest force occasioned laceration. The mucous membrane was reduced to a sort of gelatinous mass. Increased vascularity of the inner surface of the intestines was remarked, with hypertrophy and mollescence of the muciparous follicles. The kidneys were soft, and browner than in their natural state: this was chiefly observed in the right.

The progress of the disease had been rapid: it had existed seven days when Dr. CRUVEILHIER found the patient in a state of great depression, with frequent vomiting. His urine was brown, turbid, and pulverulent; the pulse was small. An internal tumor was felt at the right flank, supposed to be an enlarged kidney.

In the course of four days between this period and the decease of the patient were noted pain on pressing the epigastrium, slight cough on swallowing liquids, with syncope if he assumed an erect position.

Although the cough was trifling, a tuberculous cavity, about the size of a walnut, was found in the superior lobe of the left lung, near the pleura. It was lined by a membranous pellicle, of a greyish white, covered with pus. The remaining substance of the left lung was greyish, rather dense, and studded with a number of tubercles. The right lung also contained tubercular masses, but fewer in number.—*Journal des Hôpitaux.*

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## PRACTICAL MEDICINE.

*Nitrate of Silver, used in the Treatment of Small-Pox, and Pustulous and Vesicular Eruptions.*—The method of treating small-pox by opening the pustules immediately on their appearance, and touching their bases with a strong solution of nitrate of silver, maintains its reputation. Numerous cases of Zona successfully treated in the same manner, have been published. A female thus cured was exhibited in the amphitheatre at la Pitié. In several cases attended with great constitutional disturbance, gastric irritation, pains, vomiting, and shivering followed by heat of the skin, the local symptoms alone were attended to: they were immediately arrested, and the constitutional affection also ceased.

The same effect was perceived in one of the most fatal epidemics of con-

fluent small-pox that has ever prevailed in the French metropolis. Previously to the use of the nitrate of silver, the patients were carried off by cerebral and intestinal inflammation. In those cases where the pustules were treated by the caustic, the constitutional symptoms abated with the local irritation, and the mortality was thus averted.

A case at the Val de Grace is thus described by M. BROUSSAIS: An extensive and painful zona, accompanied by fever, headache, and redness of the tongue, disappeared in a few days by canterization with nitrate of silver. The fever ceased on the first application; a certain proof that the visceral irritation was subordinate to that of the skin.

We are not aware of its having been used in Pemphigus: it is deserving trial. The only distinction made by the French pathologists between zona and pemphigus are found on the form of the former. Pemphigus is called *Dartre Phlyctenoidé*; Zona, *Dartre Phlyctenoidé en Zone*.—A Correspondent in Paris.

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*Herpes Phlyctenoides (Zona)* proved, by attempts at Inoculation, not to be contagious.—In a case of zona, which appeared successively on the neck, chest, abdomen, and thigh, M. SERRES, the physician of la Pitié, thought that the reproduction might depend on the contagious property of the liquid. Being desirous of submitting the opinion to the test of experiment, vesicles were opened by the lancet, and the patient inoculated in various parts of the body, yet no fresh eruption appeared. The experiment was repeated in another case, with the same result; so that the disease was deemed not contagious.—*Ibid.*

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*Acetate of Ammonia in Cases of Cancer of the Womb and Dysmenorrhœa*.—The 26th Number of the Memoires de la Société d'Agriculture, &c. du Département de l'Aube, contains a case of painful cancerous affection of the neck of the womb, in which considerable relief from pain, and general amendment, were produced by the exhibition of acetate of ammonia, in the dose of forty drops: but we suspect that the medicine here spoken of must be more concentrated than the Liq. Acet. Ammon. used in England.

The uterus was considerably enlarged and indurated, with deep cancerous ulceration and callous introverted edges, furnishing an abundant sanious and fetid discharge, filled with separated granulations and little clots of black blood. The pains were lancinating, and hemorrhage frequently occurred in profusion.

The habitual sufferings from this terrible complaint were considerably increased at the period of the menstrual evacuation. The belly, tense and painful, could not endure the slightest pressure. Lancinating pains became almost continual, with convulsive twitches. These symptoms were generally relieved, about the fifth or sixth day, by an abundant menstrual discharge.

Dr. PATEN, who describes the case, now remembered that Professor MAZUER, of Strasbourg, and subsequently M. JULES CLOQUET, had successfully employed the acetate of ammonia to abate the violent pains of dysmenorrhœa. He therefore administered forty drops in water. The relief was speedy, and a continuance of the remedy produced a marked effect in subduing even the lancinating pain and hemorrhage, whenever they occurred.

After the next menstrual period, by means of the speculum uteri introduced into the vagina, the neck of the uterus was discovered to be considera-

bly improved: it had a healthier appearance; and some of the ulcers manifested a tendency to cicatrization.—*Ibid.*

*Epidemic prevailing in Paris for several months past.*—All the hospitals in Paris have abounded with examples of a singular disease, which for six months past has prevailed epidemically in Paris. In Marie Therese, where it was first noticed, thirty patients were affected. La Charité and the Hôtel Dieu contained several; and about 300 soldiers of one regiment were simultaneously attacked. It consists in a sensation as if insects were creeping over the skin; troublesome and often burning heat, darting and intense pains in the limbs, cramps in the calves of the legs, rigidity of the fingers and toes, with numbness and almost entire loss of sensibility. These are in some instances preceded by pain in the head, syncope, and gastric affection. In many, the disease has continued, from the commencement of the epidemic, without any sensible amendment.

Sulphate of quinine, opium, and laxatives, are the remedies which were first tried, but without benefit. Some cases under the care of M. RECAMIER, in the Hôtel Dieu, were treated by calomel and castor-oil. I have not heard of the employment of emetics, which were efficacious in a similar complaint described by LAUBE in 1782.

In three out-door patients at the same hospital, who presented themselves to M. BRESCHET on one day, the disease appeared in its simplest form, being confined to the hands, feet, and legs. These points were swollen, livid, tense, shining, painful, and itching; yet the patients walked to the hospital.

In several who were received at St. Louis, independently of the symptoms of pricking and formication in the legs and hands, with cramps and rigidity of the muscles, the skin was thick and black as soot. In one it was wrinkled, scaly, dry, and black. It should be noted that, as St. Louis is an hospital for cutaneous diseases, those patients would naturally be sent to it in whom the morbid appearances of the skin might be more strongly marked.—*Ibid.*

*Smoking of Belladonna in Phthisis.*—M. CRUVEILHIER employs a new mode of arresting the progress of phthisis, the smoking of the leaves of atropa belladonna, after having previously saturated them in a strong infusion of opium, and moderately dried them like tobacco. The patients begin by smoking two pipes, and end by five or six.

In four patients, who had arrived at the second stage, the cough became less frequent, and no longer impeded sleep; the titillation of the larynx disappeared; dyspnoea sensibly diminished; expectoration less abundant; fever abated, and the emaciation arrested.

In four who were in the third stage, perspiration and the pungent heat were diminished; the expectoration became less painful; colics and diarrhoea appeared; but the fever was modified, and every appearance existed that the progress of the disease was arrested.—*Echo de Paris.*

*Hepatised Lung, (Pneumonie or Granuleuse,) treated by M. CRUVEILHIER.*—Symptoms were, pale livid countenance; pulse small, very frequent; respiration laborious and suffocating. The left side of the thorax gave a dull sound on percussion. No expectoration.

A vein was opened, but no blood issued.

When Dr. C. saw the patient, he considered that bleeding was contra-indicated, and prescribed eight grains of kermes mineral in gum water, which he says effects wonders in similar cases. A tablespoonful was given occasionally, and the patient experienced relief from each dose. It produced neither vomiting nor alvine evacuation.

Soothing ptisane.

On the second day of the treatment, the left side of the chest was sonorous in a small degree at the upper and anterior part, and the dulness of sound was less felt in the other parts. Debility was now extreme, occasioning syncope when the patient sat upright for a few minutes only.

Pills of Musk, Camphor, and Nitre. Tisane repeated.

Next day, the patient could lie on the right side. Along the spine may be heard the "souffle bronchique;" in the fore part it is "demi sonore;" and at the upper crepitation is distinct.

Three grains of Kermes in a solution of gum.

At the expiration of a fortnight, symptoms continue as before. Emaciation was very great; no pain has existed. Blisters during this interval have been applied to the arms, which are kept open. The case soon ended fatally.

On examination of the cavity of the chest, all the left lung was hepatised in a particular manner: instead of being wholly red or grey, these appearances were intermixed. Numerous reddish granulations were seen, the consistence of which was between the tubercle and pus.

The crepitant rattling is not to be considered a pathognomonic sign of pneumonia, because it exists in catarrh. Dr. C. observed that the fever did not seem to be occasioned by the local affection, since the former often disappears eight or ten days before the latter.

Bleeding in these cases is said to be mortal, and the kermes to possess considerable efficacy.—*Ibid.*

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*Essential Oil of Semen Santonicum in Tania.*—This seed is much in use on the continent as a vermifuge, and is known by the term Semen contra-vermes being understood. Ten drops, with ten grains of calomel, mixed with honey, brought away a tape-worm, ten feet in length.

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*Angina Maligna, successfully treated by Nitrate of Silver.*—In an epidemic prevailing in the commune of Vouvray, Dr. GUIMIER, from the suggestion in a memoir by an English physician on the use of nitrate of silver in these cases, applied it to thirty patients, with perfect success, after the ordinary treatment of local and general bleeding, vomiting, cauterization with hydrochloric acid, and cutaneous resolvents, had been found wholly inefficacious.

The symptoms were those of angina joined to croup, termed by the French writers *Diphtherite*. The tonsils, the uvula, and the pharynx were covered with membranous concretions, of a grey, white, or yellow colour: they were thick and adherent, extending into the air passages, the larynx, and trachea. The respiration was impeded and "sifflante," accompanied with hoarse, dry cough. The patients who died previously to the adoption of the new treatment were suffocated.

Thirty patients were submitted to the application of nitrate of silver to the tonsils, uvula, and pharynx: they merely complained of its bitterness.

An advantage resulting from this caustic, in comparison with that of the



hydrochloric acid, is, that in the former the eschar is limited to the surface, while in the latter it spreads to the continuous parts, so that its extent cannot be accurately measured.

Where the disease had extended to the aërial passages, the remedy was generally ineffectual; but in one case, which terminated in croup on the tenth day, it was successful. Insufflation of powdered alum had been regularly applied on the preceding days, excepting two or three, when it was changed for the nitrate. The disease nevertheless gained the larynx, constituting a case of croup, where the croupal sound and impeded respiration existed to such an extent as to leave little hope but from tracheotomy.

It may be useful to class the benefits of nitrate of silver in these cases with the same results in other local irritations producing great constitutional disturbance; namely, the pustule of variola and the vesicle of herpes phlyctenodes, wherein both local and general symptoms are immediately cured by its application.—*La Clinique des Hôpitaux*.

*Gangrenous Stomacace*.—Dr. DE LORMEL, a disciple of “la Médecine Physiologique,” without denying the efficacy of insufflations of alum and the benefit resulting from the use of hydrochloric acid, has published the following case, to shew the necessity of copious depletion.

A child, three years and a half old, subject to worms, and latterly to diarrhœa, was attacked by violent fever, burning skin, excessive agitation, difficulty of respiration and deglutition. The child put its hand incessantly to the neck; and refused its drink. The tongue, the lips, and the gums, were invaded by an aphthous eruption, covered with white thick pellicles. The slightest pressure on the neck occasioned spasm and sense of suffocation.

Eight leeches to the neck; flow of blood to be continued ad deliquium.

Emollient poultices to the neck; mustard poultices alternately to the feet, legs, knees, and thighs.—*Mel. Rosæ ʒiv.*; *Borac ʒi.*; *Aq. Flor. Aur. ʒij.* pro lotione ori et faucibus applic. —Educorated decoction of marsh-mallows, with syrup of gum, for drink.

The bleeding was arrested with difficulty, yet it produced evident amendment, although the debility was excessive, with syncope. The child had frequent vomitings, with ejection of membranous pellicles.

On the morning of the 17th, the little patient was considered to be convalescent, but in the evening was attacked with convulsions.

18th.—Seemed again to suffer from pain in the neck; fever returned; many alvine evacuations, containing portions of the pseudo membrane, two or three inches in length, and torn in shreds. Other symptoms now appeared. Gangrene developed itself with terrific rapidity; the lips, gums, nostrils, interior of the cheeks, and back of the mouth, were covered with eschars; the face assumed a livid, cadaverous hue; a phlyctena appeared on the right cheek; sanguinolent foaming, accompanied by the ejection of an abundance of gangrenous portions. The breath was fetid; the vomitings returned.

Emollient cataplasms on the abdomen; strong sinapisms on the thighs; ablation of the mouth with strong decoction of Bark ʒiv., *Mel Rosæ ʒi.*, Alum ʒss. Blisters to the arm; two or three clysters daily.

By this medication, continued to the end of the month, the patient recovered.

*Intermittent Fever cured by the Leaves of Olin.*—The febrifuge properties of this plant have been established by M. PALLAS: they reside in a bitter extract, which is transparent, of a brown yellowish colour, and nauseating odour; soluble in water and in alcohol; and strongly reddening tincture of turnsole. It should be administered in the quantity of two grammes in three ounces of water, which, being divided into two parts, are to be taken at an interval of an hour, just before the expected recurrence of the paroxysm. It is said to have succeeded when cinchona has failed.—*Journal des Sciences Médicales.*

*Nux Vomica in Chronic Diarrhoea and Intestinal Hemorrhages.*—M. REGAMIER, of the Hôtel Dieu, having learnt that the nux vomica was used in chronic diarrhoea by the practitioners of the north, administered it in the following case, and with success.

A man, fifty years of age, eminently nervous, had been long subject to alternations of bilious diarrhoea and intestinal hemorrhagy, which had reduced him to an alarming state; his lips and countenance were pallid. Sometimes the bilious flux preceded the hemorrhoidal discharge; at others, the order was reversed. Colombo, semirouba, and powdered charcoal, had been tried without effect. Opium, in the dose of a quarter of a grain, disagreed. One-eighth of a grain of the alcoholic extract of nux vomica was then prescribed. On the following day the stools were reduced from twelve or fifteen to three or four. The dose was then doubled, one-quarter of a grain given, and the patient was speedily cured by this treatment.—*La Clinique.*

*Hypertrophy of the Heart, with Ossification of the Auriculo-ventricular Orifice.* In two patients with different maladies, who were simultaneously in the Hôtel Dieu, the sounds emitted from the diseased parts by percussion, or perceived by means of auscultation, were very strikingly different. In a case of hydatids of the liver, the sound on percussion of an abdominal tumor was designated "fremissement," and was not unlike the vibration from the cord of a base viol: in the other, which was disease of the heart, a remarkable clacking was heard, which, being accompanied by violent palpitations and orthopnea of many months' duration, was instantly pronounced to be enlargement and dilatation of the heart, with ossifications or thickening about the ventricles. This was verified by dissection. The beating of the heart was so great that the contraction of its different parts was observed to raise the intercostal spaces one after the other. Vomiting latterly had occurred in the morning; the cheeks were flushed; the hepatic region was enlarged and indurated; the limbs were œdematic; and water fluctuated in the abdomen. A few days before the man died, spitting of blood supervened, and he frequently vomited a black matter, as in melæna.

On examination of the body, the stomach was studded with points, which were found to be coagulated blood in the extremities of the veins. The heart was enlarged and dilated; the pericardium distended with serum. The valves between the auricles and ventricles were ossified at their attachments, and those of the aorta thickened.

The inner surface of the auricle was covered with a white network, grating under the scalpel.

The right lung was universally adherent to the pleura costalis, and of a fleshy texture.

The liver was firm and fleshy, with red and yellow stripes throughout; the spleen was more dense than usual.

The following case, not very dissimilar, was read to the Société de Médecine Pratique, by Dr. GONIER.

*Hypertrophy of the Heart, with Aneurism of the Arch of the Aorta, and Destruction of the third, fourth, and fifth Dorsal Vertebrae.*—A female, having, after the death of her husband, experienced severe distress and privation, was attacked with palpitations. In the course of some months this symptom increased, and at length the pulsation was so violent as to lift up the hand when applied to the region of the heart; the pulse was 120, and hard; the countenance red and animated; the lips were livid; and she experienced a sense of suffocation, especially on walking quickly or ascending a staircase, in which case she was obliged to stop.

Dr. G. lost sight of her for about five months; in the interval she had been bled and leeches. The symptoms were greatly aggravated; her respiration so difficult, that she opened the windows for relief; burning sensation in the præcordia; no œdema of the lower extremities.

The symptoms were suspected to arise from a narrowing of the auriculo-ventricular orifice, and a commencement of pericarditis. The stethoscope was applied, but the expected sound was not heard.

Leeches, digitalis, calomel, with absolute repose and low diet, mitigated the symptoms for about three weeks, when the dyspnoea being very distressing, with anxiety, leeches were again applied to the anus.

Dr. G. having absented himself, another physician was consulted, who, seeing nothing in the case but purely nervous symptoms, prescribed pills of assafetida, and an antispasmodic mixture containing opium and oxymel of squills. This gave momentary relief; but on the following day the Doctor, on his return, found her worse, unable to lie in a horizontal posture. The heat at the stomach, which had yielded to the application of leeches, had returned, with acute pain and a feeling of laceration. She fell into a dose when not spoken to. The ankles were swollen, and pitted on pressure.

Twenty leeches were again applied to the stomach; calomel and digitalis were continued; and a ridiculous attempt was made to excite the reabsorption of the anasarca fluid by frictions of tincture of digitalis.\* Decoction of chiendent with nitre, and low diet, were prescribed.

Slight relief was obtained for some days; but the swellings of the legs increased, she was harassed by cough, with expectoration of sanguineous mucus, and imminent suffocation. On applying the stethoscope, the crepitant rattling was heard in the left side. Twenty leeches were applied. Pure blood was expectorated on the following day; she was then bled, but twenty-four hours afterwards she died.

*Dissection.*—Face was of a livid violaceous colour.

No serum in the pericardium. Heart larger than natural; left ventricle larger than the right. Arch of aorta enormously dilated, containing within it a fibrous tumor, large as a walnut. The walls of the artery were unnaturally

\* The absorption of anasarca fluid, effected by bandage, has been followed sometimes by ascites. Where did the narrator expect to convey the fluid, had he succeeded in promoting its reabsorption into the already surcharged blood-vessels?

thinned, and ossified in several parts. The body of the vertebrae upon which the artery rested were destroyed; the intervertebral cartilages had in some degree resisted.

The lungs were hepatized at the base, with pleuritic adhesions; the remainder of the left lung was studded with blackish spots. The mucous membrane of the bronchiae was lined with sanguinolent mucus, and red in all its ramifications. The mucous membrane of the stomach was reduced to a red-dish pulp, which could easily be removed by the back of the scalpel, throughout a great part of its extent.

### SURGERY.

*Cure of Ulcers by Plates of Lead.*—Two patients with bad ulcers, under the care of M. BRESCHET, at the Hôtel Dieu, have been cured by the application of plates of lead. If this practice has not the merit of novelty, it bids fair to stand its ground on the score of unquestionable efficacy.

At the Hôtel des Invalides, where ulcers of long standing are very numerous, the treatment gives universal satisfaction, although at first supposed to be applicable only to simple ulcers. It has been equally successful in those of a sordid ill-conditioned nature, attended with fungous and bleeding excrescences.

A question may arise whether the efficacy may be due to the chemical decomposition of the surface of the lead, or otherwise? This is answered in the negative by the fact that laminae of tin and silver are equally serviceable.

AMBROSE PARÉ and GUY DE CHAULIAC amalgamated the surface of their plates with mercury.

*Different Modes of Curing Onychia Maligna, (Ongle rentré dans les Chairs,) by M. DUPUYTREN, at Hotel Dieu, and M. BOYER, at La Charité.*—Of all the maladies that human flesh is heir to, this malignant ulceration of the ambient parts of the nail is assuredly one of the most distressing, and until lately was one of the most intractable.

From the days of ALBUCAZIS and PAUL of Ægina, down almost to the present period, it has contrived to baffle the wit of surgery; and, if we may judge from the absence of any correct and original account of the disease in our own language, it would seem that the English practitioner is as reluctant to put it on record in print, as he must have been to meet with it in practice. For many years past, it appears to have engrossed the attention of continental surgeons only. It is to them that we are indebted for the original of an account published by Mr. WARDROP, in the *Medico-Chirurgical Transactions*. The tearing away of the nail there recommended has been the practice of the French surgeons since the names of PESTETAN and DUPUYTREN have been known to science. If to this we add the red hot iron, or the solution of mercury in nitric acid, we supply an epitome of the best surgical treatment of onychia on the continent for many years past. Yet, in spite of the canterly, and the canteries, employed for the purpose of preventing the reproduction of the nail after avulsion, which is accompanied by a recurrence of the ulceration, the relapses were so frequent that the disease, in all the severe forms, became the despair of the surgeon.

At length it was discovered by M. Dupuytren (or supposed to be the fact,) that it could only be cured by the complete excision of the matrix of the nail, together with the whole of the morbid part.

Such is the treatment pursued at the Hôtel Dieu; but M. Boyer, at La Charité, denies the necessity of this very painful operation, and is equally averse to canterization after the tearing away of the nail. The reproduction of the nail, together with the disease, he asserts may be prevented by strong and long-continued compression of the matrix, by means of plaster slips. If, however, from want of sufficient compression, or of method in the application, the nail should protrude, it must be instantly removed by the dissecting forceps, and the compression be commenced *de novo*.

M. Boyer is very great authority: we have therefore thought it right to add his protest to the necessity of one of the most painful proceedings we have witnessed in the shape of a surgical operation; and, having so done, it becomes equally our duty to communicate the particulars of the method which is employed by M. Dupuytren.

Let us first remark, that, in its simple form, we have seen the disease frequently cured by the removal of the nail only, or even a part of it. In this state it is characterised by slight excoriations, or ulceration or fissure, at the edge of the nail in which the latter is imbedded. The pain is often exceedingly acute, with inflammation of the surrounding integuments. The edge of the nail is sometimes eroded, and the nail frequently becomes yellow or ecchymosed, and as it were mortified. In this form of the disease the matrix of the nail is unaffected; but, in the more severe form, it seems to be primarily affected. The ulceration is generally of a fungous nature, bleeding at the slightest touch, often proceeding to the bone, which becomes carious, and requires amputation. The pain of the limb is often intense beyond description.

Whether these two forms of the disease are mere variations in degree, is a question "*adhuc sub judice*." M. Dupuytren thinks they are essentially different; especially as the one may be cured by avulsion of the nail, either wholly or in part, and the other requires the excision of the diseased matrix.

*CASE, unsuccessfully treated by Avulsion of the Nail, cured by Excision of the Matrix.*—A woman met with an accident on the toes; they inflamed, became intensely painful and ulcerated. Leeches, fomentations, and poultices were applied, which mitigated the inflammatory symptoms, but the ulceration refused to heal. At length it became of a sanious character, bled constantly, and the surrounding parts were greatly tumefied and painful, and the edge of the nail was deeply imbedded in them.

M. Dupuytren determined on the removal of the nail, for which purpose he thrust one of the sharp-pointed blades of a pair of straight scissors up the centre of the nail to its extremity, and cut it in two. With a pair of dissecting forceps he took each angle of the incised nail successively, everting it backwards towards the matrix, and tearing it away. In a fortnight after the operation, the ulcer was quite healed; but at the end of six weeks the nail was reproduced, and the disease recurred in the form of fungous and excessively painful ulceration. It was now determined to extirpate the matrix. An incision was carried down to the bone on the back of the toe, about five lines from the root of the nail, and, by continuing the dissection, the matrix and all the diseased mass were removed. Cicatrization proceeded rapidly, and the cure was completed without relapse.

If, after the healing of the wound resulting from the operation, or during its progress, a portion of the nail should be reproduced, this is a proof that

a portion of the matrix has been left behind, which must immediately be extirpated by the knife.

If, in the partial onyxia, one side only be affected, the whole nail need not be removed: it may be slit up near the edge, and the diseased portion everted, as in the case above cited.—*A Correspondent in Paris.*

*Cure of Opacity of the Cornea by Insufflations of Calomel.*—This practice is commonly adopted by the surgeons of Hôtel Dieu. In M. BRÉSCHET'S ward, a remarkable instance of its efficacy was seen in complete restoration of the transparency of the upper part of the cornea, which previously to its use was perfectly opaque. The patient, on being questioned, stated that on his admission, he was in a state of the most confirmed blindness, unable to distinguish light from darkness, although the transparency of the upper half of the cornea has been reproduced. The pupil is closed, and the patient is reserved for an artificial pupil. He is now susceptible of the impression of light to so great a degree, that, notwithstanding the occlusion of the pupil, he cannot remain in the courtyard exposed to the vivid rays of the sun.

*Cure of White Swelling by Frictions of Iodine, by Dr. LUGOL.*—The use of iodine in acrofulous tumors is strongly recommended by the most eminent French surgeons. M. BRÉSCHET, in his lectures, speaks of it in the highest terms. The same treatment is pursued with advantage at the Hôpital St. Louis, from the records of which a recent cure of white swelling and tumor of the jaw may be cited as a proof of its efficacy.

The patient had white swelling, with several fistulous ulcers, on the knee: the leg was bent on the thigh, and utterly useless. He had also a large tubercular tumor on the right side of the face, which seems to have its origin over the maxillary joint. The swelling was such that the man could scarcely open his mouth, and the flat edge of a penny-piece was the largest substance he could introduce between his teeth. These tumors have entirely disappeared under the use of iodine frictions.—*Journ. de Hôpitaux.*

*Chloruret of Lime and of Sodium in Burns.*—M. LISVANC, at La Pitié, uses these applications with great success. Yet the vesicles are not opened for three days, which is decidedly wrong: they should be opened as soon as formed, and the practitioner who has once tried this practice will constantly have recourse to it. The French begin with poultices, and, when the epidermis is removed, keep the surface covered with lint wetted with the solutions above mentioned, whose strength should be such as to excite warmth. The practice of applying salts is as old as the time of CROWE, who dissolved it in onion juice, and considered it a "sovereign remedy" for burns and scalds.

*Neapolitan Operation for Stone in the Bladder.*—There is at Naples a clinical institution solely devoted to calculous patients, which, on an average, amount to 500 annually. The proceeding employed by the Italians, to which they give the name of *modified lateral incision*, is the following:

A catheter is introduced into the bladder, and held in the left hand, as in the manner of CELSUS, that is, in an oblique direction from above downwards, and from right to left. The operator, armed with a straight bistoury, makes

his incision in the perineum, on the groove of the catheter, and in the interval between the transverse, bulbo, and ischio cavernous muscles.

The incision is made so as to represent a double triangle, whose bases touch, and whose summits are at the skin and the neck of the bladder. A double "gorgeret," introduced into the wound, serves to dilate it; then, by means of forceps, the calculus is extracted. At the end of two or three hours, the urine flows through the canal of the urethra, and the cure is speedily effected. Instead of losing one patient in five or ten (SCARPA), or twenty (BELL), the Italians lose but one in a hundred.

This operation, recently performed at La Pitié, on the dead body, by M. LISFRANC, and which M. BRESCHET intends to make known in the next volume of the *Annuaire des Hôpitaux*, owes its efficacy to various circumstances. First, no muscles or considerable vessels are wounded, but merely a very elastic cellular tissue, and the prostate, which is no less so; it secures the patient from hemorrhagy, and permits the extraction of calculi of considerable size, without contusing or lacerating the soft parts, as is the case in the methods of Mariano Sancto, Cheselden, and Hawkins.

PAOLA was still more fortunate than the Neapolitans of the present day. We have it from an hospital physician at Paris, who saw him operate at the commencement of the present century, that his promptitude and skill were astonishing. He lost but one patient in four or five hundred.—*Journal des Hôpitaux*.

This account of the operation is so unintelligible, that we merely give it a place for the purpose of recording the fact (if it be so,) that in Naples a practice exists by which the fatal results of lithotomy are greatly diminished. The ingenious surgeon will be able, by experiments on the dead body, to discover how far the incision above recommended would be beneficial, or otherwise.

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*Hydatids of the Liver cured by an Operation.*—A man was admitted into the Hôtel Dieu with a circumscribed tumefaction of the epigastrium, accompanied by lancinating pains; but the latter were of recent occurrence. No icterical symptoms nor fever had ever appeared. Vomitings occurred a few days before his admission.

The real nature of the tumor was ascertained by percussion, which produces a sensation of "fremissement," that cannot be mistaken by persons who are accustomed to it; but, in order to confirm the diagnosis, an exploratory puncture was made into the part with a piercing instrument of extreme tenacity, which was followed by the discharge of a limpid fluid.

An opening was made through the abdominal parietes by means of caustic potass, which was repeated three times in the course of six days. On the eleventh day the coëcar had not separated; a deep incision was therefore made into it, and about three-fourths of a pint of serous fluid came through the orifice. On the following day about a pint and a half was discharged, the patient still complaining of great pain.

In all cases where cavities are opened, it is important to exclude the ingress of air: thus, after the operation of opening synovial cavities, if air be admitted, the discharge assumes a sanious character, followed by fever, colliquative diarrhœa, and death. The cavity in the present instance was filled by decoction of marshmallows.

At the expiration of about a month from the opening, a new collection had

formed, with great uneasiness in the epigastrium. An incision was again made, which gave vent to a quantity of hydatids floating in a fluid of stercoraceous odour. Flakes of the cyst now came away, and the fluid discharged became yellow. He is still under treatment, yet no doubt remains of his recovery.

*Erysipelas.*—Discussions having arisen in England respecting the propriety of using incisions in erysipelas, it may be well to subjoin three cases of erysipelas from wounds: one cured by incision, one which probably terminated fatally for want of it, and a third which narrowly escaped the consequences of its neglect.

*CASE I.—Traumatic Erysipelas, with Delirium, cured by Incision of the Wounds.*—Jean Baptise, a patient in M. BRESCHET'S ward at the Hôtel Dieu, fell from a three pair-of-stairs' window into the courtyard. His fall having been broken by some ropes extending across the yard, he escaped with a broken arm, and two wounds in the scalp, by which the pericranium was laid bare. In this state he was brought to the hospital. The ordinary treatment of bleeding and strict antiphlogistic regimen was enforced; but on the fifth day the edges of the wound swelled and became painful, and the slightest touch produced exquisite pain.

On the sixth, the tumefaction began to extend, and fever supervened.

On the seventh, the erysipelatous inflammation was diffused all over the face and head, accompanied by furious delirium, under the influence of which the man left his bed and ran about the ward. M. Breschet immediately made incisions down to the bone through the whole extent of the wound, and the skin at their angular points, thus cutting the skin, aponeurosis, and pericranium. The delirium and erysipelas immediately ceased; and at this moment, being the tenth day from the incisions, he is in a state of recovery, and is able to furnish the account of his accident.

The new Dictionnaire de Médecine says, that it would be vain to attempt the cure of erysipelas of the hairy scalp by the exclusive use of bleeding, leeches, diluents, or emollient and resolvent applications: a crucial incision down to the bone can always destroy the painful strangulation occasioned by the swelling and tension of the fibrous membrane. Care should be taken to place lint between the lips of the wound, to prevent their reunion, which should not be permitted until the swelling of the hairy scalp has entirely disappeared. Patients are commonly relieved within twenty-four hours after the incision. Alarming symptoms, such as delirium and others belonging to cerebral irritation, have been known to disappear in the same space of time. The teguments of the cranium have become less sensible to the touch, and are covered with brawny scales. Again, if gangrene has taken place in several points attacked by an extensive phlegmonous erysipelas; if the brain, stomach, or intestine, is the seat of sympathetic affections, more or less serious; cut up the inflamed skin largely, and combat the irritation wherever the gangrene has not yet been established.

*CASE II.—Traumatic Erysipelas, fatal; no Incisions performed.*—A patient of Dr. HUSSON'S, in the Hôtel Dieu, about the latter end of September complained of lassitude, headache, pains in the epigastric region, and frequent vomiting. The skin was hot.

Thirty leeches were applied to the epigastrium; which having afforded no relief, he was bled.



On the following day, he had pain, heat, swelling, and tension in the spot where the vein had been opened. The pain was increased on moving the arm, which was effected with difficulty.

Thirty leeches to the part. Lemonade. Antiemetic potion of Revérina, which is our saline-draught. Cataplasms to the belly. Emollient clysters. Low diet.

On the fourth day, the disease had made rapid progress into the axilla, and the arm was twice the natural size; it was hot, tense, and of a violaceous colour, incapable of bearing the slightest pressure. Crepitation was felt round the puncture of the vein. No hardness appeared in the course of the vessels. The axillary glands were hard, swollen, and painful. The skin was hot and dry; pulse small and rapid. Vomitings increased: hiccup.

Forty leeches to the arm. Saline draught.

In the evening he died.

On cutting into the arm after death, traces of putrefaction existed in the limb, although in no other part. The subcutaneous tissue formed a thick bed, of a greyish colour, filled with blackish serosity, of a gangrenous odour, and which tore readily. The muscles were brownish and softened; axillary glands in a state of suppuration. The veins and arteries were unaltered in appearance, so that inflammation of the veins was not the cause of the symptoms.

**CASE III.—Traumatic Erysipelas, with Gangrene, from Bleeding; no Incision.**—This man, who was under the care of Dr. RECAMIER, of the Hôtel Dieu, was attacked after bleeding. The limb was twice the natural size; skin distended, without redness or sensible heat, even round the puncture of the vein; but the pain was very acute, and increased by the slightest pressure or movement of the arm. A yellow and fetid fluid, mixed with air-bubbles, flowed from the wound.

Fifty leeches were applied to the arm, and the usual antiphlogistic treatment pursued for eight days.

On the eighth day, two blackish eschars, about the size of five-franc pieces, appeared on the upper and inner part of the forearm: the circumference of the eschars was not more painful than any other part of the limb. The patient was in a state of great prostration, with vomiting and hiccup.

Deep incisions were made in the eschars only; and the bases of the wounds thus made were daily cauterised by the liquid nitrate of mercury until the 7th. The disease having nevertheless continued, its course had invaded one half of the surface of the arm. The muscles were in a great degree destroyed, exhibiting a vast ulcer, which furnished a great quantity of fetid, black, gangrenous sanies.

The patient recovered after extensive suppurations, which existed from November till April.—*Journal des Hôpitaux.*

**Proposed to make an Artificial Anus in Cases of Obstructed Rectum.**—In one of the clinical lectures delivered by M. BRESCHET, at the Hôtel Dieu, he referred to two cases of scirrhus rectum then in the hospital.

In one of the instances, the stricture, from thickening of the coats of the rectum, is so great as to prevent the passage of the finger beyond it. About two-thirds of the circumference are occupied by the diseased mass. The effects of compression by pledgets of lint, gradually increased in size, are to

be tried. M. Breschet referred to the statements of cures by compression performed by DESAULT, which were published in his works. Since, however, the death of that surgeon, it was ascertained that the disease was only palliated. In complete obstruction, he proposes to substitute an artificial for the ordinary anus. The suggestion appears to be reasonable; and, if such an operation in congenital obliteration of the rectum be expedient, why not when the passage of the feces is obstructed by cancerous disease of the same part. Cancer has been frequently cured in Paris by internal means; who then shall say, that the removal of the constant irritation from the presence of feces in contact with the diseased surface, and the consequent effort to evacuate them, might not be the means of contributing to a cure?

The cæcum is the part where the new passage is to be attempted.

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*Tracheotomy, and the Application of Nitrate of Silver to the lining Membrane of the Respiratory Tube, in Cases of Croup, recommended.* By DR. GUIMIER.—In the epidemic before described, children, on being examined after death, were found to have been suffocated from the obliteration of the respiratory tubes, as far as the bronchiæ, by membranous concretions.

The existence of these children, who were on the eve of suffocation, was prolonged by tracheotomy: two survived thirty hours; one, sixty.

Here the operation was performed too late. But, when it is performed, why should not the nitrate of silver be applied to the larynx or trachea, to prevent the propagation of the disease into the bronchiæ? The author thinks it should; for, when the inflammation has extended to the bronchiæ, the case is beyond the reach of art.

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*Treatment of Poisons absorbed by wounds in the Skin.*—A French physician, Dr. VERNIERE, having in view the experiments in which M. MAGENDIE succeeded in suspending the absorption of poison by the introduction of an abundant quantity of warm water into the veins, applied three grains of alcoholic extract of nux vomica to a wound made in the paw of a young dog, and placed a ligature above the humero cubital articulation of the poisoned limb. He slowly injected into the jugular vein as much water as he could introduce, then opened the vein of the poisoned limb beneath the ligature, and having drawn away some ounces of the poisoned blood, injected them into the jugular vein of a healthy dog, which instantly produced tetanic convulsions, terminating in death. The wound of the first dog was cleaned, and he was set at liberty. No sign of poisoning appeared.

The author considers that it is easy to account for the immunity of the first dog, when it is known that venous plethora has the tendency so prevent absorption, which was prevented in this case by the ligature which intercepted the course of the venous circulation.

This experiment suggested to the author what he denominates an infallible mode of treating similar accidents. But the apparent necessity of introducing water into the veins, presented an insurmountable obstacle. He proposes, therefore, as a substitute, to make a ligature on the limb of sufficient tightness to interrupt the venous circulation without affecting the arterial, and then to open a vein, so as to give exit to the poisoned blood.

In another experiment, three grains of an alcoholic extract of nux vomica were applied to a wound in the cheek of a small dog. He compressed the

jugular veins for a few minutes, and subsequently opened that belonging to the wounded side, and which bled copiously. The dog experienced no symptom of poison.

In a fourth dog, the poison was inserted under the dorsal surface of the right fore-paw, and the limb immediately bound by a very tight ligature. After five minutes, the poison was washed from the surface, the ligature detached, and the animal set at liberty. He walked quietly, but was soon seized with tetanic convulsions of extreme violence. Blood was taken largely from the jugular vein, and the convulsions ceased. The author is of opinion, that, in this case, had the action of the ligature been confined to the veins only, the distention thereby effected in them would have destroyed the poison, but the artery having also been compressed, the venous plethora could not take place.

The author adds, that hitherto no attempt has been made to follow the poison into the veins, and that the above means are especially applicable to the poison from the bite of a mad dog.

#### MISCELLANEOUS.

*Account of DR. GALL'S Disease.*—This celebrated man was of middling size: his chest large, and his limbs muscular. His head was voluminous, his forehead high and broad. Possessed of a vigorous constitution; he was enabled to give himself up to assiduous and fatiguing labours, which occasioned but slight derangement of his health at long intervals; for instance, two or three attacks of gout.

Of late years, his walk was heavy; and, when he ascended the stairs; he experienced difficulty of breathing and palpitation. About eighteen months since, these symptoms became more intense, and obliged him to keep himself in a state of repose, to follow strict regimen, and frequently to lose blood. An attentive examination by M. DENNESI, ROSTAN ANDRAL, and myself, enabled us to detect "hypertrophie" of the heart, with dilatation especially of the left ventricle. After some months, M. GALL was enabled to resume his habitual occupations. In November he commenced his lectures at the Athenée, which he continued without interruption to the third of April last, when, on returning home, he experienced symptoms of cerebral congestion. On the 20th, the left side of the face was contracted, with debility of the extremities of the right side.

The symptoms continued unabated during the month of May. The administration of purgatives occasioned prolapsus of the rectum and hemorrhoidal tumors, with slight exudation of blood. The spine and weakened limbs were rubbed with the balsam "nervin." The third friction produced an attack of gout in the hand and foot, which yielded, at the end of several days, without amelioration of the other symptoms. The employment of a dozen "douche" produced no benefit.

M. Gall then, by the advice of M. FOUQUIER, and several other physicians, saw DR. SARLANDREARE, who electrified him eighteen times, and three or four times acupunctured the epigastric region, because the functions of the stomach had latterly become impaired; all was ineffectual; and, it being thought advisable to try country air, he was removed to his house at Mont Ronge.

In addition to the other symptoms, nausea and want of appetite supervened. On the 13th of July he took an emetic, which produced several vomitings, and

two stools, with some relief. On the following day, a few spoonfuls of wine were administered with the view of reviving the action of the stomach. The left foot was now attacked with gout. The tongue was red and dry, and the stomach rejected food.

About this period, Drs. BROUSSAIS, KOREFF, and DENNESI, met in consultation, and were of opinion that the brain was affected, coupled with hypertrophie of the heart, and gastro enteritis. The latter affection excited particular attention. Mucilaginous drinks, ice triturated with sugar, nutritious and sedative clysters, frictions with a sedative liniment on the epigastric region, and even little moxas were had recourse to. M. Broussais entertained the most unfavorable prognostic, founded on the wasting of the patient, and the bad state of the digestive organs.

It ought not to be omitted that, during the whole course of the disease, no marks of febrile action were perceived; but M. Dennesi had observed, that the symptoms exacerbated in the afternoon.

On the 6th of August the uneasiness of the patient was more evident. About two o'clock he was chilly, the skin became pale, the pulse varied, but no re-action. The stomach remained in the same state, the mucilaginous drinks passing with difficulty.

Moxas were ordered to be applied at seven o'clock in the evening; but, at two, he had a violent shivering which lasted an hour, and was followed by an instant of reaction; the pulse increased to 85; many shirts were wetted by perspiration. He now insisted on taking the sulphate of quinine;—six grains were administered in a clyster, and fourteen given by the mouth, in the course of the twenty-four hours.

The intellect was good, the face natural, the tongue dry and red, the lungs performed their functions, no intermittence was perceived in the pulse. The belly free from tension, swelling, or pain. Chicken broth and gum water passed no longer with difficulty, which had occasionally occurred.

The 8th, 9th, 10th, 11th, and 12th, the pulse was never below 84, nor above 92. The exacerbations after dinner were not remarkable. Twenty-four grains of sulphate of quinine were administered in twenty-four hours. About a pint of chicken broth or gum water was taken daily, and digested without difficulty; latterly, we remarked that the colour in the face increased; the eyes began to have a wandering appearance, the ideas became incoherent; in a word, the breaking up of the faculties had commenced.

The early part of the night from 12 to 13 was tranquil: the latter greatly agitated. There was an excitement in the brain which was combated by sinapisms to the legs, and a clyster of musk camphor and sulphate of quinine.

On the 13th, drowsiness: he was visited by his intimate friends; he neither testified pleasure, nor spoke to them. The functions of the brain were evidently more impaired. The face red. Eyes still more wandering, and open. The limbs were supple, and free from spasmodic twitches.

Twelve grains of sulphate of quinine were given in the course of the day. Bilious matter has been vomited for some days past.

14.—All exciting medicines were withdrawn; the use of "adouccissants" was resumed, with warm cataplasms and synapisms to the extremities, and clysters of farinaceous materials. The symptoms nevertheless continued to increase from the 16th. The patient was in a profound calm, and with few signs of sensibility.

21.—About eleven o'clock in the evening, the circulation became quick and irregular; the respiration laborious. In which state of "agonie" he continued until the following evening, when the scene was closed in death.

*Dissection.*—Head large and heavy; the cranium twice the ordinary thickness; strong marks of the meningeal artery on its inner surface; infiltration of serum in the pia mater; arachnoid raised throughout the whole extent of the hemispheres. Four or five ounces of serosity at the base of the cranium. The brain was not cut, being intended to be preserved in spirits of wine entire. It weighed two pounds ten ounces and a quarter. The right lobe of the cerebellum was larger than the left. At the upper part and right side of the falx cerebelli, a small fibro cellular tumor exists in the substance of the brain, about the size of a nut, pedicled and osseous in the centre. The vessels of the brain are generally gorged with blood. The softness of the brain, supposed to exist during life, by the attending physicians, could not be ascertained, as it was not cut into. This state was supposed to occasion the debility of the right extremities, which is the more probable, as the serous effusion evidently took place at the close of life.

*Chest.*—The lungs were sound, and without adhesion to the pleura. Heart one-third smaller than usual; soft, and containing a moderate quantity of blood, half liquid and half coagulated. Its cavities were larger than usual, and its walls thick, especially those of the left ventricle. In the arterial valves, osseous points are felt. The transverse arch of the aorta is evidently dilated. The internal membrane of the arteries is red, and this redness is remarked even as far as the femoral and brachial.

*Abdomen.*—The stomach was large, and its parietes thickened; its mucous membrane red, thick, and softened. It was also eroded in many points; its vessels distended with blood. The mucous membrane of the duodenum, jejunum, a portion of the ilium, right colon, and its transverse arch, were red, thickened, and softened. The glandulæ peyeri turgid. No ulceration was found. The gall bladder is divided in two by a hard and thick fibro-cellular intersection, and which interrupts all communication between the two cavities. One is large, and of a brilliant whiteness; the other possesses the ordinary appearance of the gall-bladder. The first contained puriform matter, and many calculi; the other bile, with calculi. The liver was healthy.

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## INTELLIGENCE.

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### MONTHLY REPORT OF PREVALENT DISEASES.

THE diseases prevalent during the past month have, like the state of the weather, resembled those of summer rather than winter. We have met with several instances of rather severe diarrhœa, in which considerable quantities of bile have been passed. They have generally done well under the use of the Hydrargyrum cum Creta, with Dover's powder.—Fever has also been rather frequent, and some cases of it have proved obstinate, though in general the character of the disease has been mild.

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OUR readers will probably remember the notice we gave of Mr. MARSHALL'S "Hints to Medical Officers." The following extract from the Army List for

November affords a proof that we did not overrate the favorable impression that the work would create.

*Circular addressed to the Medical Officers of Regiments.*

*Army Medical Department.*

A late publication of Staff-Surgeon Henry Marshall, intitled "*Hints to young Medical Officers of the Army, on the Examination of Recruits,*" &c. printed by Burgess and Hill, contains information and instructions which, if duly attended to, will much assist army medical officers of all ranks, especially the younger classes, in discharging this important duty. I accordingly strongly recommend the purchase of this volume; and have—, &c.

J. M'GRIGOR, *Director General.*

*Regulations of the Court of Examiners of the Society of Apothecaries.*—Mr. WATSON, secretary to the Court of Examiners at Apothecaries' Hall, has published, in the Medical Gazette, the following explanation of the regulations of 1826, 7, and 8:

All medical students who commenced their attendance on lectures prior to the 1st of February, 1828, will be admitted to be examined agreeably to the regulations of 1826: viz. after an attendance on one course of lectures on chemistry; one course of lectures on materia medica; two courses of lectures on anatomy and physiology; two courses of lectures on the theory and practice of medicine; and six months physician's practice at an hospital, or nine months at a dispensary.

Those who began to attend lectures subsequently to the 1st of February, 1828, and previously to the present month (October), will be expected to comply with the regulations of 1827, and will only be admitted to be examined after the following course of study: viz. an attendance on one course of lectures on chemistry; one course of lectures on materia medica and medical botany; two courses of lectures on anatomy and physiology; two courses of lectures on the theory and practice of medicine; (these last to be attended subsequently to the lectures on chemistry and materia medica, and to one course, at least, of anatomy;) and six months, at least, physician's practice at an hospital, or nine months at a dispensary: (such attendance to commence subsequently to the termination of the first course of lectures on the principles and practice of medicine.)

Those students whose attendance on lectures commenced in the present month, will be required to observe the regulations of 1828: viz. to attend two courses of lectures on chemistry; two courses of lectures on materia medica and botany; two courses of lectures on anatomy and physiology; two courses of anatomical demonstrations; two courses of lectures on the theory and practice of medicine; (these last to be attended subsequently to one course of lectures on chemistry, materia medica, and anatomy;) and six months, at least, physician's practice at a hospital, or nine months at a dispensary; (such attendance to commence subsequently to the termination of the first course of lectures on the principles and practice of medicine.)

But all students who shall commence their attendance on lectures at the second course of the present winter session, (namely, in January 1829,) will be required to attend the physician's practice at an hospital for nine months, or at a dispensary for twelve months.

*Medico-Chirurgical Society.*—The most interesting paper read during the present season has been one on *Inflammation of the Veins*, by Mr. ARNOTT, an account of which we subjoin, from the Medical Gazette.

After remarking upon the obscurity involving the symptoms attendant upon inflammation of veins, as well as the difficulty of accounting for the formation of matter in distant parts, occasionally following injuries, Mr. Arnott stated that, in three cases of inflammation of veins which had fallen under his observation, he found in one a deposition of pus, without any sign of previous inflammation, under the skin of the forearm on the opposite side; in another, destructive inflammation of the knee-joint, with pus in the cellular texture of the thigh; while in none of the three did the inflammation of the vein extend to the heart. These cases led him to examine the opinions advanced by different writers of repute upon this subject, and the doctrines of Mr. HUNTER, Mr. ABERNETHY, Mr. HODGSON, Mr. TRAVERS, Mr. CARMICHAEL, MM. BRESCHET, RIBES, &c. were severally adverted to; the result of which examination was, that even those explanations of the phenomena which possess most verisimilitude rest on uncertain grounds; a circumstance which Mr. Arnott thinks attributable rather to the subject not having received sufficient consideration, than to the absence of sufficient data on which to form correct opinions. In conformity with this view, he proceeded to detail succinctly a number of cases where death had resulted from phlebitis, and drew various conclusions from these. The first was, that there is no evidence of the inflammation of the vein extending to the heart. In ten cases which resulted from venesection, the vena cava was not affected, still less the heart; and in half of them the inflammation had not even extended to the axillary vein; and as the cases sometimes prove fatal where but a small portion only is inflamed, it would appear that there is no direct relation between the degree of danger and the extent of vein inflamed.

The next question is, whether the secondary affection depends upon pus entering into the circulation. On referring, for this purpose, to the cases on record, Mr. Arnott found that, in fourteen out of seventeen cases, pus, either alone or with lymph, was found in the vessel after death: in one case only was neither pus nor lymph found. From this it would appear probable that the entrance of the pus into the circulation is a principal, but not the sole, cause of the secondary affection. The early appearance of the symptoms in some cases is scarcely compatible with the time required for the formation of pus, and therefore it is most likely that, if the secondary effects result from the passage of any fluid into the blood, it is of inflammatory secretions generally, and not of pus alone. According to the observations of Mr. Arnott, the inflammation of the vein usually terminates where some other vessel joins that which is inflamed. He first noticed this in a horse which was affected with phlebitis from bleeding, and in which the inflammation of the jugular suddenly stopped at the point where a small vein entered it. Soon after, in examining the body of a man who had had phlebitis, he found the inflammation of the femoral vein extending along the external iliac, to the point where the internal iliac joined it; and in a case of inflammation of the left spermatic vein, the diseased appearances extended through the emulgent vein, but ceased abruptly where this entered the cava. Mr. A. went on to shew that facts in confirmation of this general idea had been incidentally mentioned by several of those who have recorded cases of phlebitis.

The author next described the symptoms of phlebitis, and stated the periods at which death took place in a certain number of recorded cases. On examining the bodies of those who die, the following are the appearances which most frequently present themselves:—Effusions into the chest of a sero-purulent character, and the general sequelæ of active inflammation; but especially purulent depositions, either infiltrated or as distinct abscesses. The same appearances occasionally manifest themselves in the cellular substance of different parts of the body, or in some of the parts of the eye; in some instances these phenomena have been found within the cranium. The disease of the joints, in one case which was detailed, consisted of violent inflammation of the synovial membrane, with ulceration of the cartilages and baring of the bones.

Mr. Arnott pointed out the great resemblance between the train of symptoms marking the secondary symptoms in phlebitis and those which arise from the inoculation of poisons. There is in both a local affection, which is frequently very inconsiderable; and to this succeeds great constitutional disturbance, followed by inflammation of a peculiar and severe character in different parts of the body. The resemblance, which in a general point of view is sufficiently obvious, is nevertheless particularly striking with regard to the phenomena attending wounds received in dissection. There are in both a train of symptoms nearly similar, succeeded by the development of inflammation at distant points, and this also attacking nearly similar parts in both. Mr. Arnott illustrated this by a reference to several cases of death from injury received in dissection.

The fact that purulent matter is sometimes found without any signs of previous inflammation has been long known, and has been called abscess by metastasis, it having been imagined that the pus was taken up and deposited ready formed in some other place. Mr. CHESTON, in his *Pathological Observations*, (1766,) particularly alludes to this phenomenon, and expressly says that the matter is rather disseminated through the viscous than collected into an abscess. Mr. Hunter denied the possibility of purulent matter being translated from one part to another; but it was maintained in Italy by MONTeggia, who describes the serous membranes of the great cavities as particularly obnoxious to the action of absorbed matters, which, he adds, also produce abscess in particular viscera, especially the liver and lungs. More recently attention has been directed to the subject by Mr. GUTHRIE, Mr. BELL, M. VELPEAU, and Mr. ROSE.

Mr. Arnott argues that, as all the evils above enumerated have been known to follow the puncture, division, or ligature of a vein, it is probable that, when they have succeeded to a more extensive injury, they have still in reality owed their origin to the same cause, namely, inflammation of one or more veins. But, to confirm this, we ought, on the one hand, to find inflammation of the veins where the consequences alluded to have followed injuries; and, on the other hand, we ought to find similar secondary consequences under circumstances in which it is known that inflammation of veins is a frequent pathological condition, as after parturition. Mr. A. then proceeded to shew that such was the case. He first detailed four instances in which secondary affections of the viscera occurred after injuries of the extremities, complicated with inflammation of the veins of the wounded limb. In injuries of the head, secondary affections of the viscera of the chest and abdomen have long been



observed; and DESAULT, who has particularly noticed the formation of abscess in the liver under such circumstances, attributed the phenomena to concussion of the brain; an idea adopted by others, but which was founded merely on conjecture.

The author of the paper here referred to thirty-two cases in which affections of the thoracic and abdominal viscera succeeded to injuries of the head. The secretary did not read these, but proceeded to the general summary, which was, that the injury of the head in these cases consisted in twenty-two of fracture, which in all was compound, (except one, with regard to which the circumstance is not stated;) in ten there was no fracture; but in every instance there was wound of the soft parts. The wound of the soft parts was the only circumstance common to all the thirty-two cases. The phenomena attending the formation of these visceral affections were so similar to those succeeding wounds of other parts, that Mr. A. thinks it fair to attribute them to the same cause.

Mr. Arnott next proceeded to remark, that inflammation of the veins was common after parturition, and quoted several cases to shew that there was visceral affection under such circumstances, although it had not been much attended to. He next adverted to the affection of the joints, and mentioned several cases in which it had been distinctly connected with inflammation of the veins, particularly in a patient who died a short time ago, in Middlesex Hospital, with disease of the left knee and right shoulder joints, and collections of matter over the scapula and sacrum; and in which the author, in consequence of the similarity to other cases, anticipated the existence of inflamed veins, and confirmed his opinion by examining the limb, when he found the femoral vein in a state of inflammation; a preparation of which was exhibited. The author next spoke of a severe affection of the joints as occurring in parturient women, and mentions various authorities in corroboration; detailing at length an interesting case communicated to him by Dr. LEE.

In order to extend the analogy, and endeavouring to draw the connexion between these cases still closer, Mr. Arnott next alluded to the occurrence in the parturient state of a disease of the eye, similar to that which had occurred in two cases of phlebitis: one treated by Mr. EARLE, and the other a patient in whom Mr. WARDROP had tied the carotid artery with the effect of obliterating the jugular vein. This disease of the eye after delivery, it will be remembered, was made the subject of a paper published by Dr. M. HALL and Mr. HIGGINBOTTOM, in the Transactions of the Medical Society, about two or three years ago.

The general conclusions at which Mr. Arnott arrived at the termination of his paper was, that the abscesses and inflammations which take place in remote situations, after injuries of the extremities, of the head, or after parturition, are dependent upon the existence of phlebitis in the part originally affected. He does not regard the diseased action as one consisting in a mere metastasis, or change of situation in absorbed matter; but that the secondary local affections derive their peculiar characters from a change induced in the blood by its admixture with the pus or other inflammatory secretions from the vein.

## MONTHLY LIST OF MEDICAL BOOKS.

[Medical Works cannot be entered on this List except a copy be sent for the purpose; the title of Books having frequently been transmitted to us, as published, which have not appeared for weeks, or even months, after.]

A Treatise on the Nature and Cure of Intestinal Worms of the Human Body. By WILLIAM RHIND, Surgeon. Illustrated by six Plates.

Remarks on the Treatment of the Insane, and the Management of Lunatic Asylums. By E. P. CHARLESWORTH, M.D.

Manual of Modern Surgery. By THOMAS CARTTIE, F.R.S. &c.

A Pocket Compendium of Anatomy, containing a correct and accurate Description of the Human Body. By EDWARD WM. TUSON.

A Treatise on Nervous Disorders. By THOMAS RICHARDS, Surgeon.

Letters on the Study and Practice of Medicine and Surgery, and on Topics connected with the Medical Profession. By JAMES WALLACE, Assistant Surgeon R.N.

Journal of Morbid Anatomy, Ophthalmic Medicine, and Pharmaceutical Analysis.

The Pupil's Introduction to Botany; containing the Description and Physiology of Plants, in explanation of the Classifications of Linnæus and Jussieu; and a copious Glossary of Botanical Terms. With Plates. By JOHN STEGGALL, M.D.

## METEOROLOGICAL JOURNAL,

From October 20th, to November 20th, 1828.

By Messrs. HARRIS and Co. Mathematical Instrument Makers, 50, High Holborn.

October	Rain gauge.	Moon.	Thermo m.			Barometer.		De Luc's Hygrom.		Winds.		Atmospheric Variations.		
			9 A.M.	MAX.	MIN.	9 A.M.	10 P.M.	9 A.M.	10 P.M.	9 A.M.	10 P.M.	9 a.m.	2 p.m.	10 p.m.
20			40	53	45	29.99	29.99	53	54	E	E	Fine	Fine	Fine
21			52	58	46	.99	.94	56	56	E	N	Fog	Fine	Fog
22			55	63	54	.80	.69	52	63	E	WSW	Fine	Fine	Fine
23			58	59	42	.60	.78	64	65	WSW	NNE	Rain	Rain	Cloudy
24			44	52	38	30.01	30.04	64	60	N	NW	Fine	Fine	Fine
25	.16	○	42	55	43	.07	.15	61	55	W	SSW	Foggy	Fine	Fine
26			48	52	48	.11	.08	61	65	SSW	SSW	Rain	Rain	Sl. Rain
27			50	53	50	.06	.16	65	66	SE	SE	Rain	Rain	Rain
28	.21		51	54	40	.28	.32	68	65	ESE	E	Cloudy	Fine	Fine
29			46	58	42	.34	.24	64	58	E	E	Fine	Fine	Fine
30			45	52	39	.17	.18	55	58	E	E	—	—	Sl. Fog
31		☾	42	51	45	.14	.16	60	60	ESE	ENE	Sl. Fog	Fine	Cloudy
Nov. 1			47	52	46	.14	.11	60	58	ENE	NNE	Foggy	Fine	Cloudy
2			48	53	45	.10	.16	56	58	N	NNE	Fine	Fine	Fine
3			46	52	42	.20	.20	60	60	NNE	ENE	Foggy	Fine	Fine
4			46	53	40	.14	.07	62	62	ENE	SE	—	—	Foggy
5			42	53	40	.04	29.99	63	63	SE	ESE	Fine	Fine	Cloudy
6			45	53	40	29.99	.96	65	66	SSE	SSE	Foggy	Foggy	Foggy
7		●	46	46	35	.90	.81	67	60	SE	SE	Fine	Fine	Fine
8			37	45	34	.80	.77	55	53	ESE	ESE	—	—	—
9			36	44	36	.60	.50	55	57	ESE	ESE	—	—	Foggy
10			39	38	34	.40	.38	60	63	ESE	ESE	Foggy	Fine	Cloudy
11			36	34	26	.44	.50	66	64	E	E	—	Foggy	Cloudy
12			28	34	28	.51	.51	64	66	ENE	ENE	—	Fog	Fog
13			38	46	45	.55	.56	68	70	E	SW	Fine	Fine	Fine
14			48	45	40	.39	.94	71	74	SE	S	Foggy	Rain	Cloudy
15		☾	45	54	48	.21	.34	75	72	SSE	SW	Rain	Cloudy	Cloudy
16	.40		44	54	47	.30	.18	72	70	SW	W	Rain	Rain	Rain
17			50	56	44	.50	.66	70	78	NNW	WNW	Fine	Cloudy	Fine
18			45	50	41	.80	.92	74	68	WNW	NW	Foggy	Fine	Fine
19	.43		45	50	40	.81	30.06	68	66	NW	NW	Fine	—	—

The quantity of Rain fallen in the month of October, was — inch and 52.100ths.

ERRATA.—P. 402, 7th line from bottom, for on read or.

P. 403, 20th line from top, for puncture read punctum;

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TO THE

FIFTH VOLUME OF THE NEW SERIES

OF THE

**London Medical and Physical Journal.**

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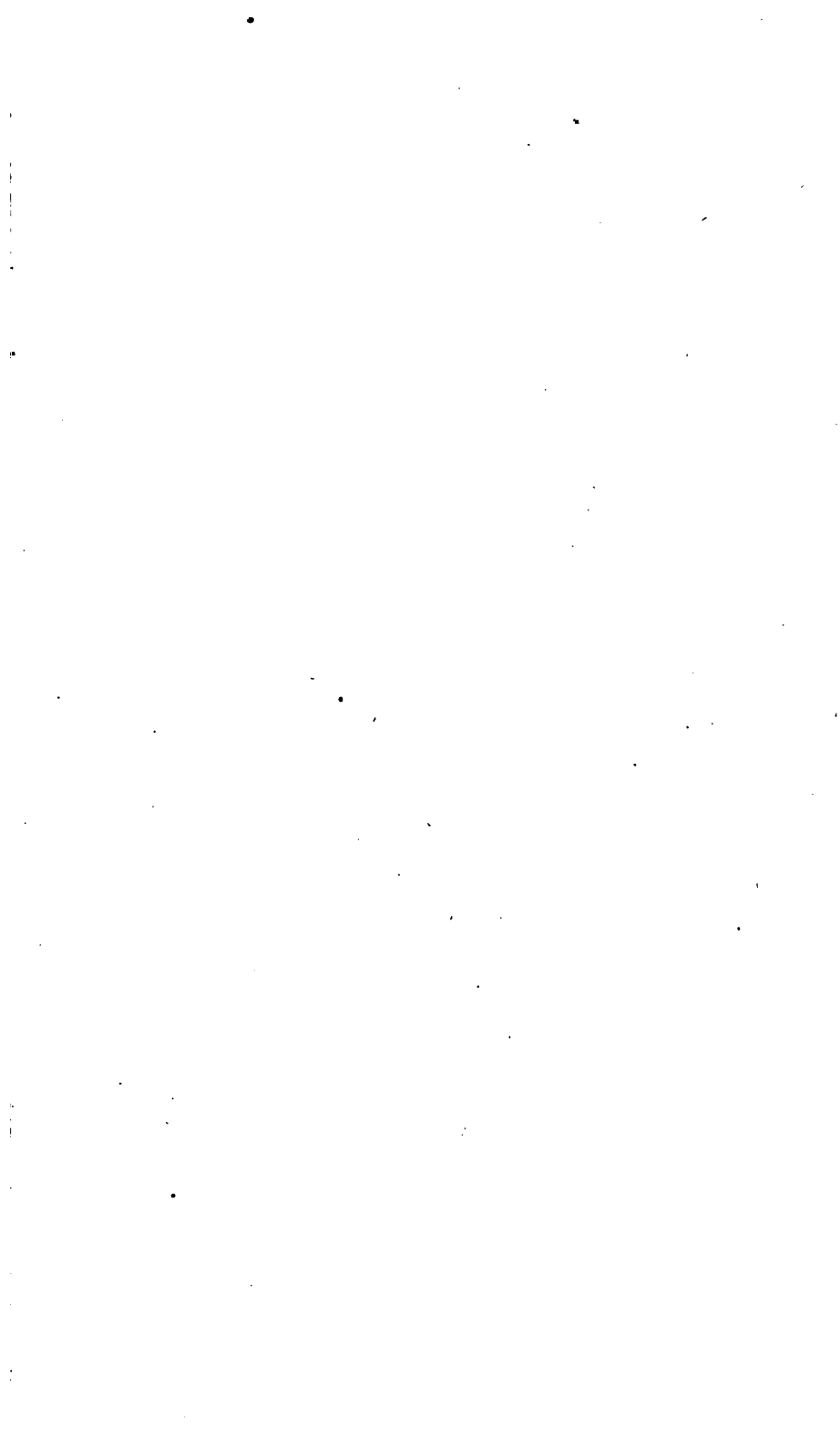
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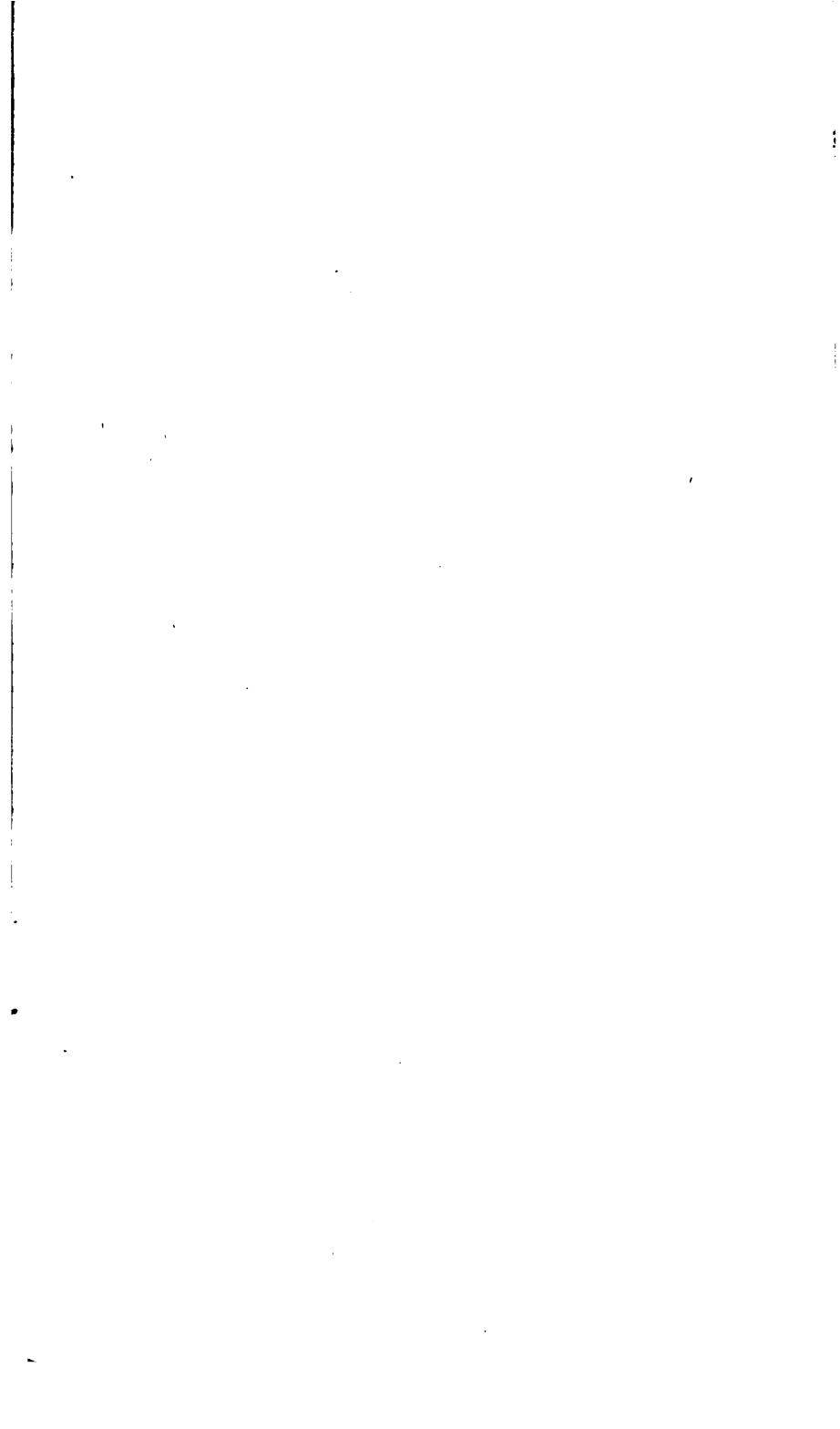
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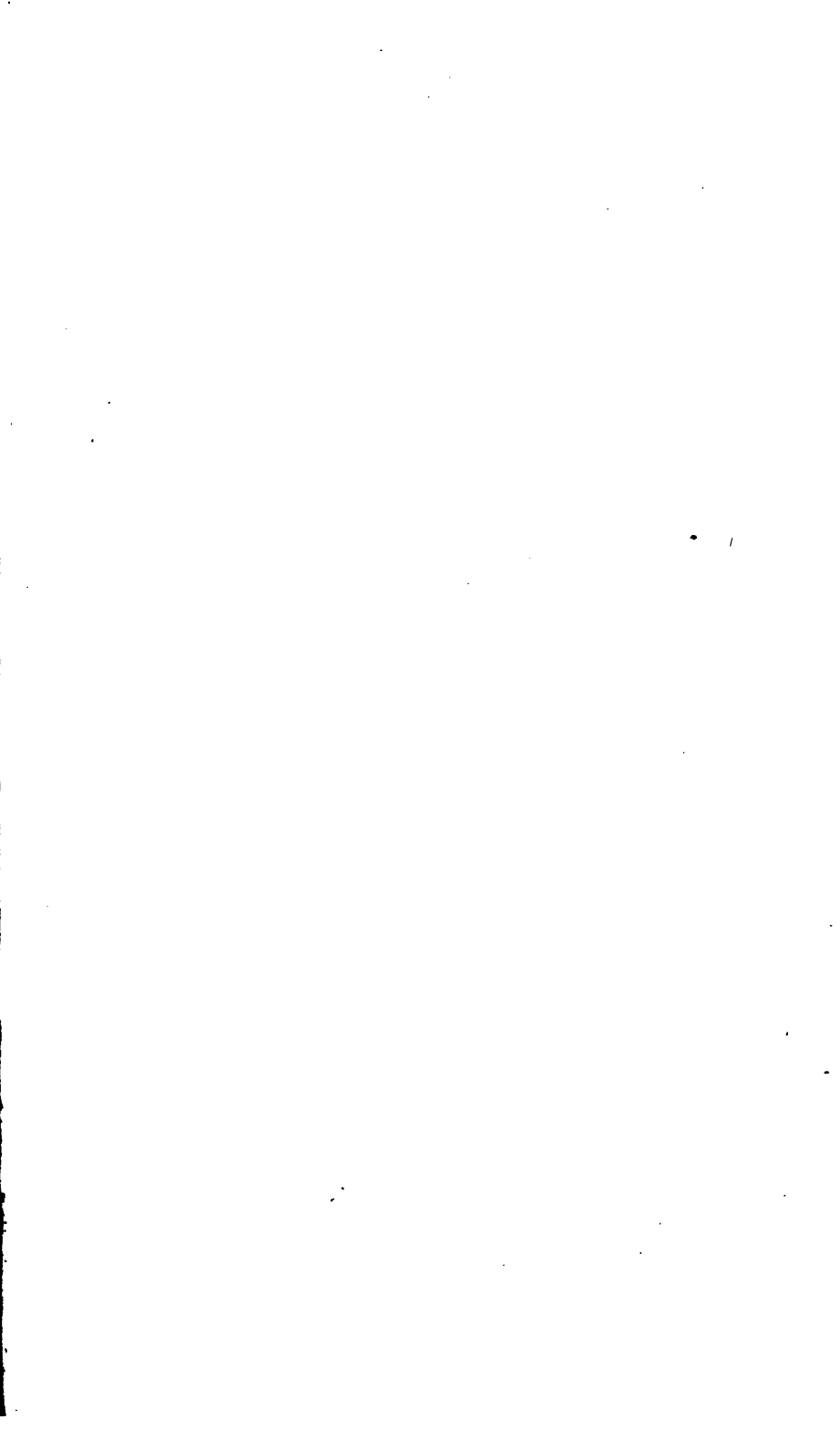




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